packaging



Nominated for packaging's Hall of Fame. Story on Page 82

February 1949



an **EMULSION** adhesive successfully bonds

Moistureproof Cellophane to Chipboard

Acetate to Chipboard or Envelope Stock

Address: 270 Madison Avenue, NEW YORK 16; 3641 So. Washtenaw Avenue, CHICAGO 32; 735 Battery Street, SAN FRANCISCO 11; and other principal cities. In CANADA: Meredith, Simmons & Co., Ltd., TORONTO and MONTREAL. In ENGLAND: National Adhesives, Ltd., SLOUGH.



replaces lacquer type adhesives. CELLU-LOK is a white, fluid "RESYN" emulsion that dries to a clean, colorless, transparent film . . . thins with water . . . eliminates inflammable solvents . . . helps prevent bleeding of inks and penetration . . . reduces drying time from days — to several hours . . . has a quick initial tack and is non-blocking. Has CELLU-LOK been fully tested? Yes! For fifteen months in the field. Like to test CELLU-LOK? We'll be glad to supply a test run sample and the services of a National technician to work with you in your plant.



PHOENIX METAL CAP CO. * Metal Caps for Glass Packages * Chicago 8, Brooklyn 18

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Modern packaging



Vol. 22 No. 6 February 1949

GENERAL

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New trade symbol and improved color help boost plumber-supply sales 30 to 35%.

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At birthday celebrations everywhere, you find the familiar array of birthday candles lighting up many happy returns of the day. To carton the candles—most quickly and economically—leading birthday candle manufacturers rely on Redington. They include: Emery Industries, Inc., Columbia Wax Products Company, Candle Craft, Inc., Will and Baumer Candle Co., and Diamond Candle Company, Inc.

OUTPUT HIGH—COST LOW—OPERATION SPEEDY Cartons in collapsed form are placed in magazine. Candles, with tips all pointing one way, are placed in a hopper on machine by an operator. Machine feeds a carton from its magazine, forms it, counts out and as-

sembles 36 candles, inserts the candles into the carton, and closes carton by tucking in the end flaps. Machine cartons 100 packages (36 candles per package) per minute. The machine illustrated (REDINGTON TYPE 12), is a specially constructed cartoner with all the unusual requirements needed for handling the delicate birthday candles built right into it. Typical of Redington, its construction is of solid cast iron base . . . features varispeed drive . . . and start-stop motion for completely simplified transfer of candles from magazine.

Also typical of Redington, is the proved ability of Redington engineers to help you solve your unusual packaging problems. Write today!

F. B. REDINGTON CO. (Est. 1897) 110-112 S. SANGAMON ST., CHICAGO 7, ILL.



AUTOMATIC CARTONING . WRAPPING . SPECIAL PACKAGING



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THAT ANOMALOUS "INDUSTRY" comprising the packaging field can take pride in the fact that its size and importance have at last been officially recognized.

The accolade is given in the first issue of the Department of Commerce's latest quarterly Industry Report, Containers and Packaging, which accounts for its inception by stating flatly: "This industry (packaging) has expanded to such proportions that it is today one of the major basic industries in our national economy and makes a substantial contribution to the well being of that economy... Full cognizance of the importance of the industry, not only to itself but to the entire national economy, should form the cornerstone of all planning." Many industrialists and economists, the publication points out, are now using paperboard consumption as a basic forecast indicator of general business activity.

We take issue with the Department of Commerce in characterizing packaging as in industry. We hold that it is not an industry, but a vast horizontal field of related activities cutting across many industries. But we do not take issue with the job that its new publication is doing. Its quarterly compilation of production figures, trends and basic statistics on all types of containers promises to be of incalculable value to packaging.

Out of the figures and charts in its first issue, Containers and Packaging draws a conclusion as to the outlook for packaging so significant that it ought to be printed in 48-point and hung on the wall:

"(The) approach of supply to demand after years of shortages, years of unfilled order backlogs, years of attempting to spread too little equitably to greatest need means more than just the end of an interlude. It is time for genuine, down-to-earth approach and thought with respect to the many problems which already have arisen and which will continue to arise for some time to come."



The Editors



A quick way to starch and iron!

How could any starch be easier to use than Quick Elastic Liquid Starch?* You just pour . . . add water . . . and use. It's as simple as that.

Of course, the wide mouth on this bottle helps make pouring easy . . . and then there's the free spinning screw cap. Not an ordinary screw cap, mind you, but a Crown Screw Cap. The only screw cap that has the patented Deep Hook Thread. It seals securely and dependably without side-wedging or binding.



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More and more manufacturers are turning to Crown Closures. They find that Crown's precision manufacturing methods mean less trouble on production lines and give their products a bonus in customer satisfaction.

When you're talking closures... talk to Crown. Our 50 years of accumulated knowledge of scientific sealing methods is available to any manufacturer to help him get maximum efficiency from his closures. Crown Cork & Seal Co., Baltimore 3, Md. World's Largest Makers of Metal Closures.

*This product is made by The Hubinger Co., Keokuk, lowa.

CROWN CLOSURES

Approved by millions of housewives

FE

You knead color in margarine

... and discover an amazing combination of properties in HYCAR

This new pouch-package for oleomargarine deserves the award* it got. It is made from a combination of Hycar and vinyl resin. The idea may lead to a whole new chain of improved packages. With one twist, a housewife discharges a color capsule into the white margarine, quickly kneads it through and soon has

100

the golden spread she likes to serve on the table.

Just think what they're asking of this pouch! Transparency—so a woman can see what she's doing. Flexibility—so the kneading operation can be easy and quick. Great strength—so there's no danger of its breaking open in her hands. And in addition, the package must be tasteless, odorless and appetizing in appearance. If it were not for Hycar American Rubber this package might not have been possible.

This is one outstanding example of the many development ideas that Hycar American Rubber has helped make possible. It suggests ways for making old products better, cheaper or both—for lowering processing costs—for creating markets for brand new products. For instance, Hycar can now be put into formulations with Geon polyvinyl materials—and you do away forever with migrating plasticizers!

We make no finished products from Hycar, but we are glad to supply information and to help with any special problem. Write B. F. Goodrich Chemical Company, Dept. HG-1, Rose Building, Cleveland 15, Ohio. In Canada: Kitchener, Ontario.

Hycarda: Ritchener, Ontano.

Hycarda: Ritchener, Ontano.

American Rubber

American Rubber

B. F. Goodrich Chemical Company THE B. F. GOODRICH COMPANY

GEON polyvinyl materials . HYCAR American rubber . KRISTON thermosetting resins . GOOD-RITE chemicals

*Delrich E-Z Color Pak (Cudahy)
Packaging Award, Modern Plastics competition, Visten Film by





Specialty Packages

Printed folls, glassine, coated and specialty papers in sheets, rolls, bags and combination. Wide choice of Milprint printing processes.

Moths MINY

Lithography and Printing

Displays, booklets, broadsides—all types of printed promotional material as well as Milprint lithographed packages.

You can't tell a package line to roll up its sleeves and go to work, now that orders are harder to get. They're either built that way or they aren't. And developing packages that know how to slug it out in tough competition has been Milprint's specialty for fifty years. Call your local Milprint man. He'll share your problem with our package technicians and design artists - a combination that has produced some of the nation's most successful packages. And to help introduce your new packages our merchandising experts can plan and produce your dealer and consumer promotional literature and point-of-sale displays. Call or write today. We'll say it with action and results!

PACKAGING MATERIALS
Lithography & Printing

GENERAL OFFICES, MILWAUKEE, WIS.
SALES OFFICES IN ALL PRINCIPAL CITIES.

7ransparent Packages

LD FORESTER

Printed Cellophane, Pliofilm, Acctate and other transparent plastic films. Available in sheets, rolls, bags or special constructions from Milprint.

S CARTONING MACHINE

saves time and money

Clairol, Inc., manufacturers of preparations for the beautification of hair through color, makes good use of a Ross semi-automatic machine in their packaging department. A company spokesman writes, ". . . the machine is used to open and tuck seal six of our different individual cartons. We can truthfully say that its performance has been all that we expected. A great amount of time is saved through its use, and these days, time saving means money saving. We would not besitate to recommend it to anyone else."

Let us send you up-to-the-minute literature describing modern Ross cartoning ma-chines. Use the convenient coupon, no obligation involved.

This Ross semi-automatic machine pictured in the Clairol plant will set up and tuck seal a wide range of carton sizes ready for hand filling. Fully automatic Ross machines that first load and then seal both ends of a carton are also available.

Here's How CLAIROL ADJUSTS MACHINE TO HANDLE 6 DIFFERENT

CARTONS

This familiar Clairol carton can be seen in beauty salons and on the shelves of drug, department and chain stores the world over.



A. H. Ross Company, Inc. Subsidiary of Rockwell Manufacturing Co. Box 998, Dayton 1, Ohio



Gentlemen:

Please send me a copy of your latest bulletin describing Ross automatic and semi-automatic cartoning machines.

COMPANY.....

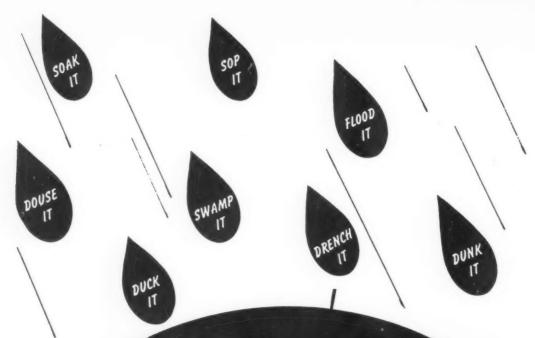
CITY......STATE.....

YOUR NAME......POSITION.....

AS EASY AS TUNING A RADIO A change from one size carton to another is made by simply

A change from one size carton to another is made by simply resetting the position of dial controlled compounds that are permanently mounted on the machine bed.

NG



IT'S GLUED TO STAY THE STEIN HALL WAY!

Moisture meets its master in Stein Hall Waterproof Glues! What's more, there's a specific Stein Hall Waterproof Glue for your individual packaging needs...whether it developments: These glues run clean at top speeds! These glues give off no odors! For a quick solution your waterproof glue problems...join the thousands of industries who always call Stein Hall!





ATLANTA . BOSTON . BUFFALO . CHARLOTTE . CHICAGO . CINCINNATI . DETROIT . LOS ANGELES . NEW ORLEANS . PHILADELPHIA PORTLAND, ORE. . PROVIDENCE . ROCHESTER . ST. LOUIS . SAN FRANCISCO . MONTREAL . TORONTO



Traver craftsmanship in both design and production assures an outstanding package in every respect. Long experience in all phases of flexible packaging has given us the know-how to select the packaging material and design the type of package best suited to your particular product. Brilliantly printed cellophane bags and over-wraps:

Plain or printed transparent plastic bags; Loxtite individual cell-type partitions, we have them all! On your request we will redesign your present package to meet the higher requirements of today's competitive market or work with you in developing new packages with real sales impact.

Sales Offices in Chicago, New York, Foladelphia Pittsburgh Cleveland Kansas Sy. St. Louis, Dallas, Detroit, Oakland



For full particulars write:
366 W. ONTARIO ST., CHICAGO 10, ILLINOIS

NVERTERS AND PRINTERS OF CELLOPHANE, PLASTICS, ACETATES, FOIL AND GLASSINE

FEBRUARY 1949

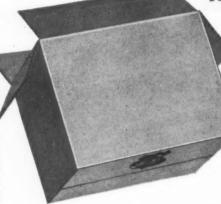
HIA

ING

A Pedigree is a Promise of Quality . . .

IN BOXES TOO!





PROMISE OF Quality
PROMISE OF Service
PROMISE OF Fair Price

THE PEMBROKE WELSH CORGI, as we know it today, traces its history back to 1107 when Flemish weavers brought it over to Wales to serve as a cattle dog. Hardy, alert and intelligent, members of this little breed make very rewarding household pets.

THE Union shield trade mark identifies boxes with a pedigree that goes back to the timber in Union's own forests.

Only fibre from fresh cut trees goes into Union boxes and completely integrated production, under one management in the world's largest Kraft pulp-to-container plant, is checked and rechecked every step of the way to maintain consistent high quality standards without variation.

Five of the nine largest paper machines in the world and four modern box plants are your assurance of getting Union boxes when and where you need them.

And 75 years of leadership in paper packaging stands ready to help you in any problem of package engineering or design.

UNION Corrugated Containers UNION BAG & Paper Corporation

Principal Offices: WOOLWORTH BLDG., NEW YORK 7, N. Y.

Corrugated Container Plants: SAVANNAH, GA. . CHICAGO, ILL. . TRENTON, N. J.





REYNOLDS TRAYPAK

for fresh, pre-cooked, refrigerated or frozen foods, bakery goods, candies, nuts, waxes, etc.

Low-cost expendable container in which food can be processed directly—oven-proof, for baking. In many operations now using permanent containers, Reynolds Traypak offers better product presentation without the expense of washing and rehandling containers. In other cases it makes aluminum's superior protection and display available to both manual and semi-automatic packing operations.

Pre-formed of pure aluminum. Semi-rigid. Shipped nested, lids separate. Lid may be color printed for brilliant, self-selling display. Strong yet easy-to-open crimp closure. Cannot absorb moisture or juices. Protects against light and odor. No liner or wrap necessary, but may be transparent wrapped

without lid to show product. Pint and quart sizes available now. Reynolds Metals Company, Richmond 19, Va.



REYNOLDS ALUMINUM

FROM TACOMA TO TULSA

TO TALLAHASSEE ...

THERE'S A TEXTILE BAG MANUFACTURER-

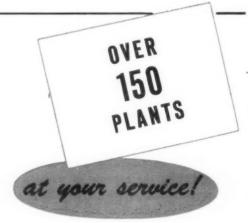


NEAR YOU!

Wherever you are located in this great country of ours, there's a textile bag manufacturer near you . . . and anxious to be of service to you!

Result: (1) quick, reliable service in providing a better container for your product! (2) dependability of supply, regardless of how large or small your requirements may be! (3) thorough-going technical experience in providing a container tailored to your needs!

And remember—sturdy, good-looking textile bags are stronger, easier to handle, stack, and ship—and they help to SELL your product as well as safely CARRY it!



TEXTILE BAG MANUFACTURERS ASSOCIATION

611 Davis Street

Evanston, Illinois



Lock



FOIL CARTONS ARE GEARED FOR SALES!

Foil is a moving display. Walk past a Foil package in a window or on a shelf-and see for yourself how the changing pattern of reflected highlights and shadows gives the strong illusion of movement. See how this play of light and shadow on the glittering Foil surface animates the package ... how it attracts the eye and commands attention. Is your product selling so well that you could not use the dynamic forces of Foil for higher profits through

increased sales? Send us your present carton for suggestions.



UNITED BOARD AND CARTON

156 Solar Street, Syracuse 1, New York

Board Mills: Lockport, N. Y.; Thomson, N. Y.; Urbana, O. Carton Plants:
Victory Mills, N. Y.; Syracuse, N. Y.; Brooklyn, N. Y.; Cohoes, N. Y.; Springfield, O.

keeps dry, powdered milk dry free-flowing and sterile SAFER, LONGER STORAGE NOW POSSIBLE

Hygroscopic is a horrid word—especially if you're a producer of dry powdered milk. But dry powdered milk IS hygroscopic. Picks up moisture like a magnet picks up iron. And moisture means trouble—cakes powdered milk into big solid lumps that must be broken down into powder again—before product can be used.

Old methods failed to seal out moisture, so the Arkell Safety Bag Co. of Chicago determined to find an answer to the problem. They talked it over with Visking engineers. And soon their talk took the shape of the Visqueen film-lined Arkell bags you see here.

After much testing and rejecting, the multi-wall krinkle-type kraft paper bag—lined with Visqueen film—stood out as the winner. It had plenty of "give," a surface easy to grip, and toughness to take rough handling. It had good stacking, storing and filling qualities. And Visqueen film sealed out moisture and air like nobody's business!

No time and labor wasted for "de-lumping." No contamination of the product. Yet this improved packaging actually costs less!

Such performance has won for the package the tentative approval of the American Dry Milk Institute. For technical data or general information on what Visqueen film may do for you—write us today.



VIS QUEEN FILM-A PRODUCT OF

THE VISKING



Filling Visqueen film-lined bag with powdered milk at Dean Milk Co., Rockford, Ill. In test, bag opened 9 months after sealing showed no trace of lumping.

Product stayed dry and as free-flowing as when poured into bag 9 months before!

Moisture-banning Visqueen film liner—heat-sealed at bottom, filled and tied or taped at top—is inserted into kraft bag which is then sewed across top. Bag manufactured by Arkell Safety Bag Co., Chicago.

CORPORATION . PRESTON DIVISION . TERRE HAUTE, INDIANA

*T. M. The Visking Corporation



Here's your 1949 "Who's Who" and "What's What" in colorful, festive Christmas paper designs . . . some of them proved producers, several of them brand new with a rosy future ahead! They're what Santa ordered for gift wrapping and counter rolls-with excellent working qualities for the box maker. Most designs are available in 26" and 30" rolls - embossed or unembossed - all are stocked in 26" rolls. Write for a complete sample book or full sized sheets.

NASHUA DISTRIBUTORS TO THE SET-UP BOX TRADE

Bradner Smith & Company, Chicago . DePear Paper Company, Chicago . Handy Paper Company, Rochester . Holyoke Coated & Printed Paper Company, Inc., New York . Lachman Novasel Paper Corp., New York . Matthias Paper Corp., Philadelphia . The Queen City Paper Company, Cincinnati . Frank Schulman Paper Corp., New York . The K. E. Tozier Company, Boston . D. L. Ward Company, Philadelphia West Coast Paper Company, Seattle

NASHUA GUMMED AND COATED PAPER COMPANY

NASHUA, NEW HAMPSHIRE

Baltimore · Chicago · Detroit · Los Angeles · New York · Philadelphia · Pittsburgh · San Francisco

NOW-

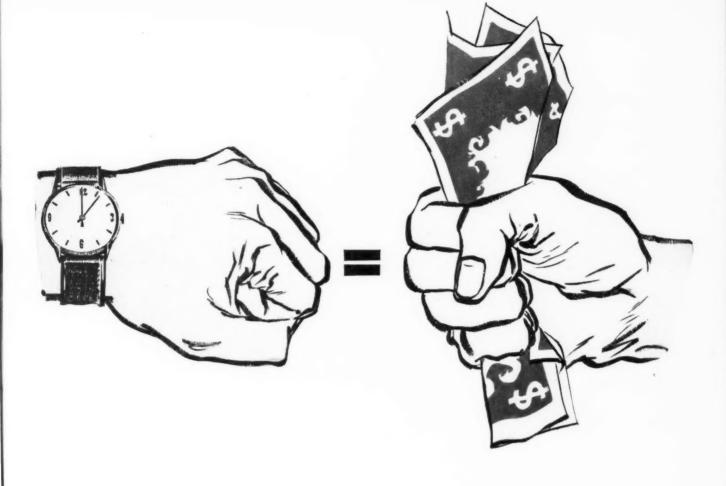
sk to see our special signature wrap design which can be had with customer's name incorporated in the design. *Small or large quantities as desired. *Available for wrapping paper, counter roll, bag, or box covering purposes.











Have you found this out about Time?

Executives have discovered something about Time.

They've discovered that, even in these days of atomic theory and super-mathematics, the old formula is still the same: *Time* equals *Money*.

That's why executives who consider the time-factor as a profit-factor put their products in faster-filling, easier-closing metal containers.

AMERICAN CAN COMPANY

New York · Chicago · San Francisco

This trademark CANCO is your assurance of quality containers. Look for it!

Other advantages of the can

- 1. Cans are break-proof.
- 2. Cans protect contents against light, air, insects, and moisture.
- Cans are light—mean lower shipping costs.
 Compact—mean more storage and display space.
- 4. Cans mean eye-appeal for impulse buying.
- 5. Cans are tamper-proof.
- 6. Cans are easy to open and dispose of.

OUR LOSS FACTOR

Glassips One. Drinking are a result of Transparent Drinking are a result of Transparent Towns of Transparent Towns

IS SO SMALL
THAT WE HAVE
DISCONTINUED
KEEPING RECORDS"

SO WRITES THE PRESIDENT OF

Glassips Inc.

Mr. Dieffenbach says, we are better than we claim!

Shortly after our first printed statement concerning the customer who had reduced losses on a hundred million cartons a year from 2% to 7/10 of 1%, we received the comment set forth in the letter herewith.

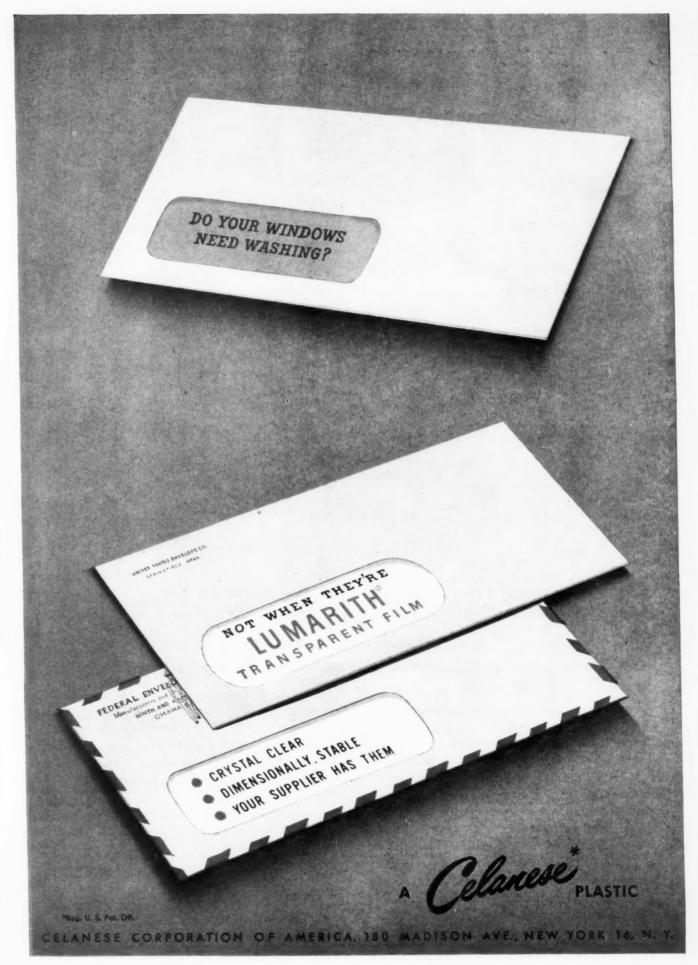
There you will note that on this unusually tricky carton, packaging loss has been practically eliminated. In this case, the automatic machinery not only counts and packs 50 cellophane straws to each little package, but folds and locks the box as well,—unique testimony to the absolute precision of GUILFORD CARTONS.

THAT THIS IS A TRICKY PACKAGE WE WILL BE GLAD TO SEND YOU ONE.

THE GUILFORD FOLDING BOX CO.

Haven Street and Ashland Avenue • Baltimore 5, Maryland • Phone Orleans 2043 • New York Office: 80 Maiden Lane • Phone: Whitehall 4-5848 — 5849

QUALITY CARTONS Faithfully Produced





WHEN IT MELTS, WHICH WAY WILL IT FLOW?

In retail sales, as on the continental divide, a little difference can mean a lot

On the mountain backbone of America, there are places where a man can stand with one foot in a rivulet of melting snow going to the Pacific Ocean, and his other foot in one flowing to the Gulf of Mexico. A little difference of inches in their points of origin spells the big difference in miles they must travel.

In the returning buyers' markets, with their "competitive divides" that determine the flow of profit and loss, manufacturers are beginning to remember that even a little difference in packaging can make a big difference in consumer preference for retail products.

When seeking to develop packages of superiority and distinction, boxboard that's *custom made* to your particular needs and objectives provides a "point of origin" with obvious advantages. Ridgelo clay-coated boxboard is the

product of a company whose entire out-put is custom made!

A quality boxboard in every regard, Ridgelo is also a highly versatile one. For example: It may be had with a special coating for acetate lamination; it may be had with beautifully uniform coatings of metallic gold and silver; brush finishes are available for exceptionally high gloss cartons; and it may be had with specially sized finishes for varnish, lacquer, and gloss inks.



MADE AT RIDGEFIELD, N. J. BY LOWE PAPER COMPANY

REPRESENTATIVES

H. B. Royce, Detroit • Philip Rudolph & Sons, Inc., Philadelphia A. E. Kellog, St. Louis • Norman A. Buist, Los Angeles

FRONT RANK

in ANY company

"because it is every bit as good as it looks!"



WITH THE NEW POLYETHYLENE CLOSURE—so fine-looking you won't want anything less attractive for your product! Their gem-like color and crystal-clear, smooth surface implies their extra quality: unrestricted, streamlined neck for easy filling and dispensing.



Ask about the extensive size-range, the amazing variety of closure styles available in metal or plastic including modern polyethylene closure. We have samples which you can use to compare with your present containers . . . why not send for some?

Celluplastic

Corporation

48 Avenue L, Newark 5, N. J. • New York Office: 630 Fifth Ave.

Celluplastic is First Thought in better containers; shatterproof, featherlite, inert to most chemicals, tasteless, odorless; excellent for product protection *plus* eye-appeal.

*Reg. U. S. Pat. Off.



Like a mirror, COFCO Aluminum Foil truly reflects a beauty and quality that lends itself to unique and colorful package designs . . . producing a stimulus for greater sales of your product.

This ideal packaging material also provides unequaled functional as well as decorative qualities. Get all the facts about foil's versatility and distinctiveness, and begin packaging your product this modern way. We'll gladly supply the names of well qualified manufacturers who will discuss your packaging needs with you.



COCHRAN FOIL COMPANY

INCORPORATED

LOUISVILLE 10, KENTUCKY



Sales Offices:

3318 East Lake St. Minneapolis 6, Minn.

623 Fisher Building Detroit 2, Michigan

527 Lexington Ave. New York 17, N. Y.

238 W. Wisconsin Ave. Milwaukee 3, Wis.

Hippodrome Bldg. Cleveland 15. Ohio





This Rigaud advertisement is appearing in current issues of trade papers in the perfume field. To be thus identified with this new Rigaud package is more than gratifying. It is also evidence of the confidence and satisfaction which has been built up through a business relationship extending over many years.

CARR-LOWREY
GLASS CO.

Manufacturers of fine quality machine made and handmade flint glass containers.

Wistful Magic



...and a touch of delicate splendor are imparted through the elegant craftsmanship behind Rowell containers.

This artistic achievement adds subtle persuasion to the purchase of cosmetics for face and dusting powders and helps send them on to their heavenly missions.

E.N. Rowell Co. Inc.
Manufacturers of Fine Paper Boxes

BATAVIA, N.Y.







Boxes for pharmaceuticals



eauty makes Sales

FOR CROMWELL WATCH

Cases of

Koppers Polystyrene will make sales for your products

■ This azure blue box of Koppers Polystyrene is a perfect partner for the Cromwell watch band. The blue sets off the gold and other precious metals of the bands. The tight fit of the box protects the contents from dust and tarnish. The box itself prevents customers from handling the bands and leaving unsightly finger prints.

Dealers, everywhere, are enthusiastic about display boxes of Koppers Polystyrene. It comes with the crystal clarity of fine glass or in any desired color to enhance the beauty of the product.

With careful design the boxes can be made tight and dust-proof. Transparent covers permit full view of the product and discourage handling. Correct interior design holds the product at the right angle.

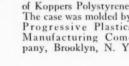
Saves money, too. With all its attractiveness, Koppers Polystyrene is not expensive. It is the lowest in cost of all thermoplastic molding materials - and its light weight brings considerable reduction in shipping costs. Send the handy coupon for our new booklet on Koppers Plastics.

KOPPERS COMPANY, INC.

Chemical Division

Pittsburgh 19, Pa.

Lord Cromwell watch band in azure blue case of Koppers Polystyrene. The case was molded by Progressive Plastics Manufacturing Com-pany, Brooklyn, N. Y.





*POLYSTYRENE . *ETHYL CELLULOSE

SEND FOR FREE BOOKLET

Koppers Company, Inc. Chemical Division MPG2 Pittsburgh 19, Pa.

Please send me your new illustrated booklet on Koppers Plastics.

Name_____Position____

Company_____



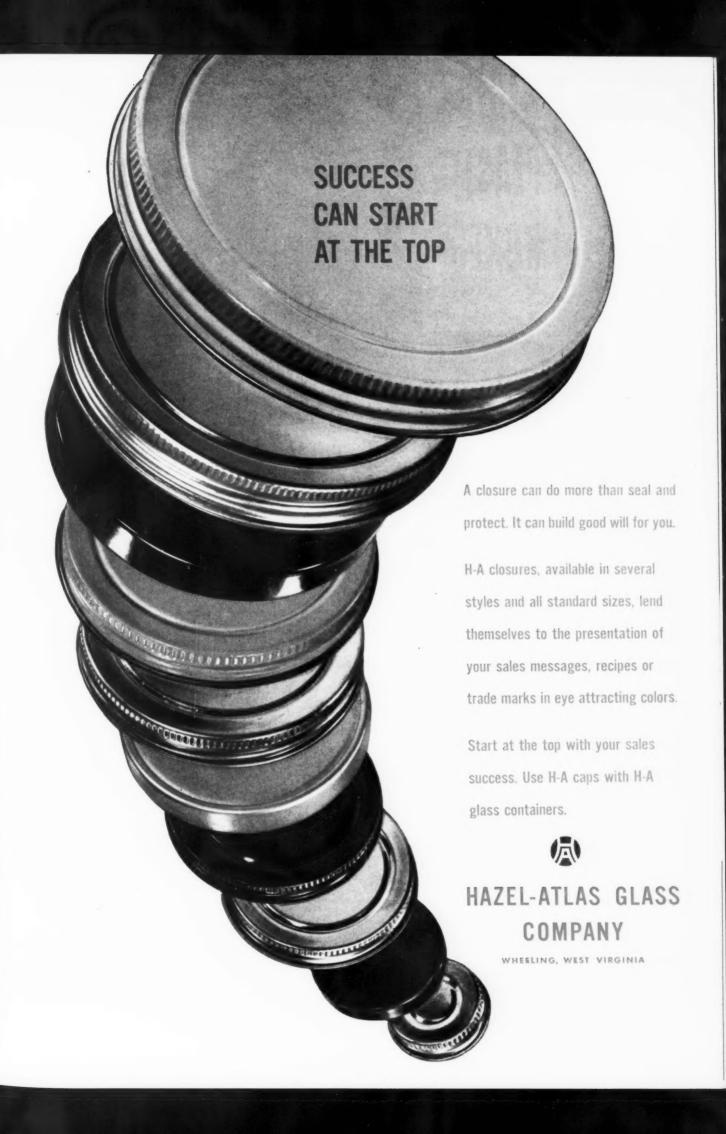
SERVICE..

The Very Best...On Every Order.

Folding Cartons . . plain, printed, laminated, paraffined.

CHICAGO CARTON COMPANY

CHICAGO CARTON COMPANY . 4200 SOUTH CRAWFORD AVENUE . CHICAGO 32, ILLINOIS



Tri-State PLASTIC

RIGID PLASTIC BOXES

do Double Duty

Tri-State Rigid Plastic Boxes protect, display, merchandise their contents. When emptied, they are extremely useful for a number of household purposes, including service in the refrigerator.

Unfilled Tri-State Rigid Plastic Boxes provide quickmoving, over-the-counter merchandise.



Diam. 4-3/8" Height 3/4"



4-1/2" x 13" x 9"



Diam. 3-3/4" Height 1-1/8"



4" x 8" x 3-1/4"

"Tailor made" for the job packaging must do today—sell—these non-toxic, odorless, shatterproof, dimensionally stable containers assure complete protection for contents from all harmful agents normally encountered. Crystal clear, translucent or opaque, their sparkling beauty makes exceptional appeal at the point of sale.

Packaging operations are simplified and costs reduced in practically all instances, because sealing tape, folding, labels, repeated handling, etc. are eliminated.

Tri-State Rigid Plastic Boxes can be employed to good advantage by virtually all manufacturers desiring highly protective, distinctive, attention-getting packaging. Especially recommended for food, dairy, cosmetic, confectionary, bakery, tobacco, jewelry, and hardware industries.

NOTICE: We are the sole inventors and originators. Patents have been applied for on all these designs and infringers will be prosecuted.



Diam. 4" Height 2-1/2"



4" x 4" x 3-1/4"

WE MOLD TO YOUR
SPECIFICATIONS, OR
IN A WIDE RANGE OF
AVAILABLE STOCK
SIZES AND SHAPES



The best Rigid Plastic Boxes are Injection Molded by

TRI-STATE PLASTIC MOLDING COMPANY

HENDERSON, KENTUCKY

New York Offices: 12 E. 41st Street - Murray Hill 3-6572







you need TUFFLEX



Tough interior packaging materials may be harsh and abrasive. Soft materials may be flimsy and hard to handle. But Tufflex—the new felted wood fiber—combines BOTH softness and toughness in a single material!

Light in weight and non-abrasive, Tufflex is soft as lamb's wool. But it also has the ability to take heavy impact blows, and it possesses a high degree of resilience. It is easily fabricated—cuts with clean edges and stays in place. Available in rolls and sheets of various thicknesses and widths, Tufflex is solving many of today's difficult packaging problems.

Described as "wood fiber felt blankets," Tufflex is approved as protective padding in the new Railroad Requirements for Furniture Packing (Supplement No. 32 to Consolidated Freight Classification No. 17). Get all the facts—mail the coupon.

Dept. 208-29 First National Bank Building

Wood Conversion Company

St. Paul 1, Minnesota

					-
			T	V*	
	TI	LL	LL	A	
\ •	LU	USHION PADDIN	G . THERMAL .	SOUND	
PR	POTECTIVE & C	USHIOI	*REG. U.	S. PAT. OFF.	
	MADE BY	THE MAKER	S OF Bal	Sam-Wood	e

Gentlemen: I want to know more about Tufflex. Please send me complete information.



9 out of 10 buy Riegel

Nine of the ten largest potato chip makers buy Riegel Papers regularly

Among the makers of potato chips, and in many other fields, you will find most of the sales leaders are regular Riegel customers. They buy from us because they know we can make packaging and industrial papers that combine technical excellence with economy and production efficiency. Their confidence in Riegel is an important reason why your company—whether large or small—should see if we can also help you. Write to Riegel Paper Corporation, 342 Madison Avenue, New York 17, N. Y.

Ricgel Papers We produce over 600 different packaging, printing, converting and industrial papers. If we don't have what you want, we can probably make it.

ULGIJEJ PLASTIC BOXES TO FIT HOUSE PRODUCTS



• These beautiful, crystal-clear plastic boxes are supplied in four standard sizes and in any partition arrangement desired.

In addition to many stock boxes, others with special compartment arrangements are available at little cost. Thus you can have a package to meet your needs - to individualize, display, and sell your products.

Manufacturers, jobbers, retailers find that products packaged this way sell much better. Retailers give them preferential display space. Vlchek Plastic Boxes are light and hard, retaining polish. They have many "after uses" which delight customers and create sales.

Write for prices, telling us the kind of merchandise to be carried so that we can write you fully.

Standard Sizes

10³/₄" — 6.4" — 1³/₄" 7" — 3¹/₂" — 1-3/16" 8¹/₄" — 4¹/₄" — 1¹/₄" 4¹/₂" — 2³/₄" — 1" 41/2" - 23/4" - 1"

PLASTICS DIVISION

3001 East 87th Street

Cleveland 4, Ohio





PAISLEY PRODUCTS INCORPORATED

Manufacturers of Glues, Pastes, Resin Adhesives, Cements, and Related Chemical Products
1770 CANALPORT AVE., CHICAGO 16, ILL., PHONE CANAL 2220 * 630 W. 51st St., NEW YORK 19, N.Y., PHONE COLUMBUS 5-2860

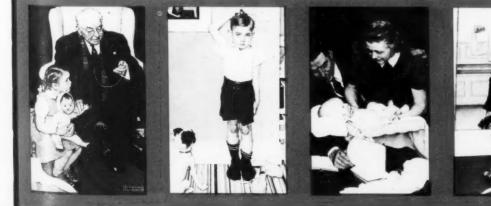


human values.

FORRES

LITHOGRAPH CO.

Boston









HUMAN VALUES ... Maternal pride, young male ego and kindly professional interest are some of the human values depicted by this current window display. Over the years, a long line of Upjohn window displays have been created and produced by FORBES, predicated upon the well-being of our most precious fundamental American relationship: THE FAMILY. These displays have won instant endorsement and acclaim from physicians and pharmacists, and have presented

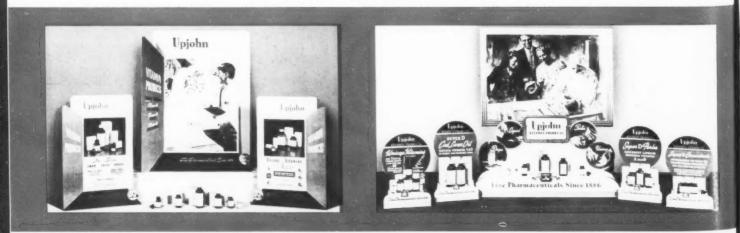
Upjohn products with a dignity which perpetuates the prestige enjoyed by that ethical house. Upjohn displays remain in store windows far beyond the initial showing time generally accorded other displays; many are saved and re-used, over and over again; in some cases for as many as five years. They exemplify the sound, persuasive creative thinking and quality inherent in all lithographed and printed sales and advertising material created and produced by FORBES.

FORBES

NEW YORK · · CLEVELAND

LITHOGRAPH CO. CHICAGO · ROCHESTER, N.

Boston



her business

is BIG BUSINESS!

USE LACHMAN-NOVASEL

Baby Papers

THE MOST COMPLETE LINE
AVAILABLE! For: Box Coverings • Gift Wraps • Displays
Special Linings • Window And
Counter Trims • Promotion Of
Infants Wear . . .

Millions of infants are going to be needing — and getting — all kinds of necessities and gifts! Cash-in by using Lachman-Novasel's superb line of baby papers — the most complete, the most beautiful!

All items available in 26" rolls. Can also be supplied in sheets in any desired length cut from 26" width.

Sample sheets gladly furnished you without obligation.

LACHMAN-NOVASEL PAPER CORPORATION

109-111 Greene Street

New York 12, New York

Another Example of Gardner-Richardson Packaging Ingenuity...

THE REVOLUTIONARY



Shellie nurser kit

COMPONENT PARTS ALL NESTED INTO ONE COMPACT, EYE-CATCHING DISPLAY PACKAGE!

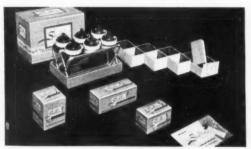
THE Shellmar Products Corporation had a wonderful new idea. It was a revolutionary nursing bottle that would give natural nursing action, and put an end to bottle washing! But to package it was a problem, because components of the complete kit were of irregular shapes and sizes.

It was only natural that Shellmar officials—leaders in their own packaging field—should bring this problem to Gardner-Richardson. For it was one of those "hard to package" products on which we have built a reputation in the field of converted paperboard. And our packaging engineers and designers came up with a simple and practical answer!

Today, the component parts are nested in a quickly assembled display tray, which slips 'easily into the folding outer carton. The kit has complete protection inside the carton—and outside the carton, it makes an eye-catching counter display!

DO YOU HAVE A NEW IDEA THAT NEEDS PACKAGING?

A product that's never been packaged? A package that needs a face lifting? Let Gardner-Richardson tackle your problem. No obligation, of course. Write, today.



These Shellie Nurser Kit components...
...fit snugly into this eye-catching display box!





Shellies, like so many overthe-counter products, get extra eye-appeal, extra sales from Coated Lithwite, the quality claycoated board that's whiter

...brighter. Colors hold up brilliantly on Coated Lithwite...pictures reproduce with true-to-life realism. Rub-resisting. Fade-resisting. For a practical way to upgrade your cartons, investigate Coated Lithwite.

THE GARDNER-RICHARDSON CO.

Manufacturers of Folding Cartons and Boxboard, Middletown, Ohio

* Pag. U.S. Pat. Off.

Sales Representatives in Boston, Chicago, Cleveland, Detroit, New York, Philadelphia, Pittsburgh, St. Louis

Tupperware

Housewares Award Winner is known and approved by discriminating hostesses in every income bracket.



Tupperware

Canisters, Cereal Bowls, Wonder Bowls, Refrigerator Bowls are used in 3450th Station Hospital Mess. Fort Warren. Wyoming

UPPER!



"... to convey ... portions of special diet food ... to bed patients ... your wares ... fill a long felt need"

Between the armed services and the civilian there always has and probably always will exist, great differences in thinking.

But, when products or services have had placed upon them the mantle of leadership as have these products, there is born an unanimity of approval among all groups seeking high standards of quality and serviceability.

Not too many manufacturers seek the patronage of the Armed Services, particularly in times of peace. The regulations governing standards are pretty "rugged". When such patronage is extended, unsolicited, it is another source of gratification to this organization of molders of extraordinary plastic products . . . to find their wares preferred for a preferred service, in comparison with the conventional and long established.

Is it presumptuous then, that we should feel our products are most appropriately associated with those of other wholly reputable and responsible members of American Industry? We think not.

Would you like to know who some of those others are, and how they associate their products with ours?





TUPPER CORPORATION

FACTORIES: Farnumsville, Mass., and Cuero, Texas

New York Show Rooms 225 Fifth Ave.

ADDRESS ALL COMMUNICATIONS TO: Development Department A, CUERO, TEXAS

COPYRICHT 1949

2 Steps to good CELLOPHANE PRINTING moord











Cellophane packages Aniline-Process Printed with BBD EXCELLOPAKE INKS by CELLO-MASTERS, INC.-NEW YORK, N. Y.

> If you print on Cellophane, Glassine or Cellulose Acetate—take a tip from other converters and package-printers . . . use BBD EXCELLOPAKE INKS. Made by America's largest producer of Aniline Inks, EXCELLOPAKE is an opaque, 100% pigmented ink that doesn't chip or crack . . . is light-fast, non-bleeding, impervious to moisture and food fats. Good printing results are doubly assured when you use BBD EXCELLOPAKE... because you also get famous BBD technical assistance from aniline printing specialists. Contact your nearest BBD office now.

Distributors

Manton Brothers Elizabeth Street, Toronto, Canada A. M. Bojanower

2785 E. Slauson St., Los Angeles 11, Cal.

Export Division

McLaurin-Jones Co. 150 Nassau Street New York 7, N. Y.

Associated Manufacturing Plants

Bensing Brothers & Deeney, Inc., in Mass. 81 Albion Street, Wakefield, Mass. Bensing Brothers & Deeney, Inc., in Ill. 2358 N. Seeley Avenue, Chicago 47, Ill.

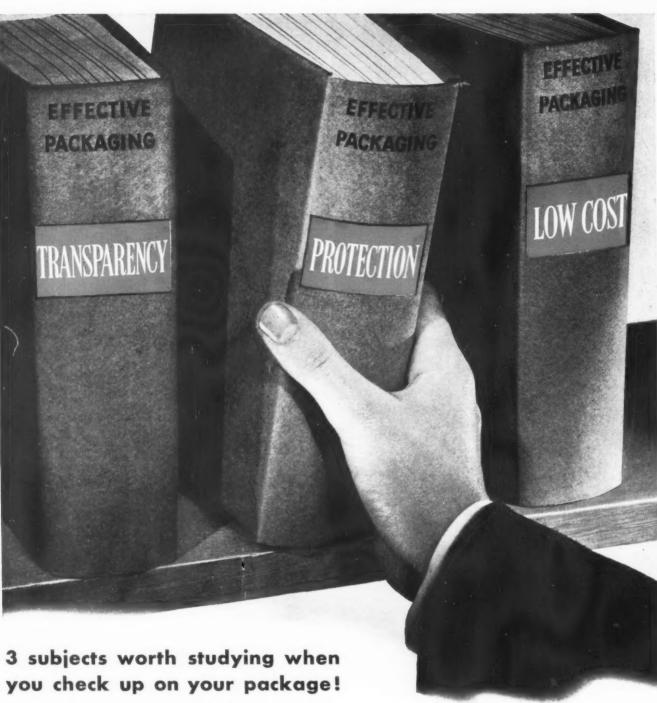
Largest Manufacturers of Aniline Ink in U.S.A.

ng Bros. & Deeney

HOME OFFICE AND PLANT

401 N. BROAD STREET, PHILADELPHIA 8, PA.





Does it have sales appeal? Impulse buying plays a big part in today's self-service selling. Transparent packaging attracts the shopper and makes your product its own best salesman.

Does it do a good protective job? Today's shopper wants full value in a product. The package must protect the original quality on its journey to the consumer.

Is it economical? Alert manufacturers want a packaging material to supply the necessary merchandising and protective factors at lowest cost. And one that operates with economy and efficiency on automatic packaging machinery.

Packaging authorities agree that these three basic points are always a timely yardstick to measure effective packaging. E. I. du Pont de Nemours & Co. (Inc.), Cellophane Division, Wilmington 98, Delaware.

DuPont Cellophane

Shows what it protects—protects what it shows
...at low cost!



BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

STANDARD-KNAPP PACKAGING MACHINES



LABELERS

GLUERS and SEALERS

CASE PACKERS

CAN PACKERS

BOTTLE PACKERS

BOTTLE WASHERS

CASE OPENERS

CONVERGERS

DIVIDERS

STANDARD-KNAPP MACHINES

are engineered with one objective constantly in view
— they must pay for themselves in faster, better
packaging.

Engineering to this hard rule of performance requires not only ingenuity but the desire and ability to analyze packaging problems. Feats of mechanical wizardry are not enough. They must be accomplished under the pressure of daily production requirements. They must not require complicated maintenance procedures.

Standard-Knapp has made it a practice to study production problems and to design equipment built to solve them efficiently, with a minimum of interruption and upkeep expense. Simplicity of operation and ruggedness of construction characterize Standard-Knapp machines.

STANDARD-KNAPP

DIVISION OF HARTFORD-EMPIRE COMPANY

PORTLAND, CONNECTICUT



BULL'S-EYE BILLBOARDS that double-sell your brand

• The closure on your package can be the target of every eye . . . the final push that tips the sales to your brand. It's free advertising space yours to use any way you want. To plug a trade mark . . . new product uses . . . other items in your line. Owens-Illinois *lithographed* closures give you maximum impact at the point of sale. Their brilliant color and design flags consumer eyes in stores, reminds them of your name every time your product is used at home.

Our expert design-engineers are ready to consult with you and suggest closure designs that will help build your package's impulse appeal, and bring profitable repeat business. Full range of sizes and shapes ... prompt service.

CLOSURE DIVISION - OWENS-ILLINOIS GLASS COMPANY

TOLEDO I, OHIO . BRANCHES IN PRINCIPAL CITIES



Seals flavor in, seals moisture out

One of the best-known developments of the Mead Paper Man is Mead's laminated envelope stock. This widely used functional paper is first choice for packaging many of America's leading brands of soft drink powders. It possesses excellent printing properties, seals flavor in, seals moisture out, provides positive protection against the caking of the powder.

The Mead Paper Man will be glad to bring you (or send you) samples of laminated envelope stock or other Mead functional papers. He has a wide selection for you to choose from . . . Heat Seal label, frozen food papers,

papers that are flexible, non-toxic, water-vapor resistant, grease-proof, odorless, printable, or adaptable to heat-sealing on high-speed automatic machines.

If you have a packaging problem that involves paper, let the Mead Paper Man help you to study it. He's mighty handy when it comes to prescribing or inventing a new paper.

The Mead Paper Man is the representative of the Mead New Products Division. He represents one of America's most versatile paper makers, now in its second century of experience.

NEW PRODUCTS DIVISION
THE MEAD CORPORATION CHILLICOTHE, OHIO

Sales Offices: The Mead Sales Company, 230 Park Ave., New York 17 • 131 N. Ludlow St., Dayton 2 • 20 N. Wacker Drive, Chicago 6



One way to lick high labor costs

Get a CECO

adjustable

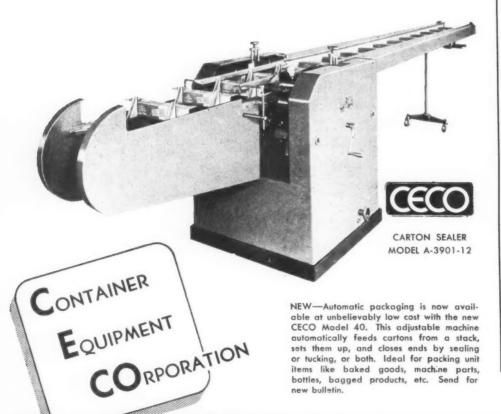
CARTON SEALER

Users of CECO Adjustable Carton Sealers have reduced labor costs and increased production despite higher wages and less working hours. Most CECO Sealers save enough on labor alone to wipe out their low initial cost within the first year.

CECO Sealers glue-seal both ends of any size carton from 2 to 36" deep, auto-

matically, simultaneously, up to 120 per minute, and deliver cartons to the packing case. The machines are simple, portable, and can be operated, adjusted, and maintained by unskilled help without tools.

Send for data showing how these low-cost CECO Sealers produce more, betterlooking packages at less cost for products similar to yours.



Types of products now packaged economically on CECO Carton Sealers

Absorbent Cotton
Baby Foods
Baked Goods
Baking Soda
Balloons (Target)
Bandages
Batteries
Beans
Beer
Bearings
Bicycle Pedals
Biscuit Mix
Bluing

Bolts and Nuts Books Brake Lining Cake Mixes

Candy
Carbon
Cereals
Cheese
Cocoanut

Coffee
Cosmetics
Desserts
Diapers and Liners
Dried Milk
Drugs

Ether
Drinking Cups
Facial Tissues
Film
Floor Tile
Food Containers
Fuel Pumps

Griddles Ice Cream Mix Insecticides

Macaroni Noodles Napkins

Napkins
Oleomargarine
Oil Filters
Pharmaceuticals
Paper Seat Covers
Pastina
Patching Cement
Pillow Cases
Piston Rings

Potato Chips Puddings Sheets Shock Absorbers Spaghetti

Spagnetti Spices Starch Seeds Sugar Tea Toys

Vitamins Wax Paper Work Gloves

Packaging Machinery Specialists 214 Riverside Ave., Newark 4, N. J.

CHICAGO • TORONTO • BALTIMORE • ST. LOUIS
SAN FRANCISCO • ROCHESTER • JACKSON • BOSTON
SAVANNAH



THIS HANDY GUIDE
IS "MUST" READING
FOR ALL PACKAGING MEN

This informative booklet fills a long felt want in the packaging field. Here are all the essential facts you need to determine the proper use of Sylvania Cellophane. Basic data on types, weights, protective qualities and recommended use is given in concise, easy-reference style. It's packed with the kind of information you need to meet today's packaging requirements. Write for your copy today. Address Market Development, Dept. M. 1-2.

SYLVANIA CELLOPHANE

SYLVANIA DIVISION AMERICAN VISCOSE CORPORATION

Manufacturers of cellophane and other cellulose products since 1929

General Sales Office: 350 Fifth Avenue, New York 1, N.Y. Plant: Fredericksburg, Va,

SYLVANIA.

Famous n. Products CLUETT, PEABODY & CO.,INC.

10 EAST FORTIETH STREET

NEW YORK 16. N Y December 16, 1948. There are four ontstanding shirt pox.

There are four ontstanding Leasons why we Steatfy appreciate I. It broking my shade.

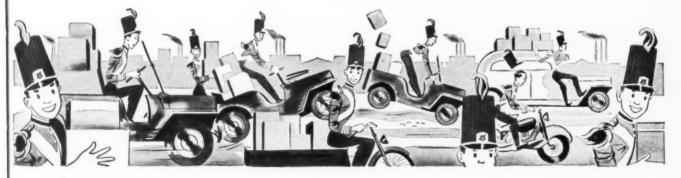
Authorized of the shade and the broking in sylbbing and 2. The appearants of these Arrow packaging. 3. Protection is warp. CLUETT, PEABODY & CO., INC. and Prosident BTL: LSM

Go to Market in-

GAIR CARTONS

Arrow Shirts Are Now Going to Market in a New, Improved Two Piece Folding-Box

This attractive, revolutionary box was recently designed and developed by the technical staff of Robert Gair. The new GAIRanteed features in ARROW BOXES are solving major problems of shipping, warehousing and "set-ups"... and furthermore these innovations are providing worthwhile economies.





What GAIR accomplished with this outstanding achievement for Cluett, Peabody & Co., Inc. is typical of the technical and efficient service that the ROBERT GAIR ORGANIZATION has been rendering for more than eighty years.

Our technical staff will be glad to hear about your packaging problems. Write today.

ROBERT GAIR COMPANY, INC.

NEW YORK TORONTO

PAPERBOARD . FOLDING CARTONS . SHIPPING CONTAINERS

FINE

BOXES

Many leading manufacturers send their products to market in well-made, eye appealing Kiernan-Hughes set-up boxes.

By choosing Kiernan-Hughes as their box supplier, these manufacturers assure themselves of delivery when promised, and personalized service which guarantees boxes made to highest standards of quality.

For quality paper boxes, inform Kiernan-Hughes of your requirements.

You are welcome to visit the modern Kiernan-Hughes plant at any time.



KIERNAN-HUGHES CO.

"SAFEGUARD SET-UP BOXES"

384 NINTH STREET

JERSEY CITY, NEW JERSEY

Order your copy now ... before edition is sold out

The 1948 Modern Plastics Encyclopedia

INCLUDING, AT NO EXTRA COST,

The CATALOG of PLASTICS STOCK MOLDS*

The 1948 edition of the Modern Plastics Encyclopedia, the most authoritative compendium of plastics information and know-how in the world, is an important addition to every packager's library.

Bigger and more comprehensive than any previous edition, it covers all phases of the ever-changing plastics industry. It brings you up-to-date on plastics materials, product applications and production techniques and equipment. It reports on the major developments and changes that have occurred during the year—changes that may have important consequences for your business.

INCLUDES CATALOG OF STOCK MOLDS

This year for the first time, the Encyclopedia includes at no extra cost, the invaluable Catalog of Plastics Stock Molds which alone formerly sold for five dollars. Completely revised and up-to-the-minute, this catalog (last published in 1944) illustrates over 2,000 stock molds and covers molded parts, cast shapes and extrusions.

INCLUDES 12 PLASTICS CHARTS

These invaluable charts have been completely revised to incorporate recent developments. Two important additions — covering the properties of plastic films and laminates — bring the total to twelve. They're all boxed in a sturdy separate package.

NOW IN ONE HANDY VOLUME

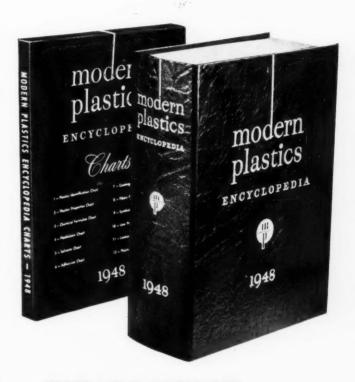
An extensive survey showed us that 80% of thousands of users preferred a one-volume Encyclopedia. It's handy. It's easier to use for frequent reference. It takes less desk space.

CONTAINS COMPLETE DIRECTORIES

Also incorporated are the valuable Directories of Manufacturers, Equipment, Personnel, Suppliers, Services, Trade Names and Molders' Marks. They're an exclusive feature of the Encyclopedia, obtainable nowhere else.

*REG. U.S. PAT. OFF.

PLASTICS CATALOGUE CORP.
122 EAST 42ND STREET, NEW YORK 17, N.Y.



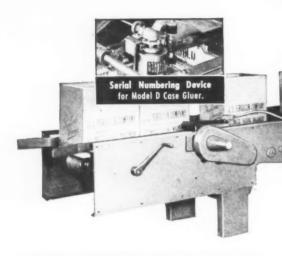
ORDER YOUR COPY NOW

If your company supplies or serves the plastics industry, or manufactures or uses plastics materials or components, you should have a copy of this Encyclopedia for ready reference. Fill out and mail the coupon for your copy now...before edition is completely sold out.

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Let PACKOMATIC help you perfect you package handling

Better Service Greater Earnings



Package handling—from carton forming and filling to shipping case gluing and sealing—ceases to be a problem where PACKOMATIC equipment can be adapted to the job at hand.

In fact, throughout more than a quarter of a century of efficient packaging machinery design and construction, J. L. Ferguson Company has refused to accept a package handling situation as a *problem*.

With PACKOMATIC designers, your packaging situation is a *project* to which years of practical experience with some of the world's foremost packaging goods manufacturers is quickly and intelligently applied.

The result may be an automatic top and bottom carton sealer-an automatic telescoping volumetric filler-an auger packer-weigher-or a net weight scale. Again, your particular situation may call for a PACKOMATIC Model D automatic shipping case gluer and sealer, or-if yours happens to be a low speed operation, where total volume is small—a PACK-OMATIC hand glue belt compression sealer may be adequate.

Regardless, from your PACKOMATIC packaging consultant you can be assured of suggestions and recommendations that bring the right equipment to the job at hand.

If your own carton forming and filling-your own shipping case gluing and sealing operations-haven't been effectively mechanized, feel free to call on the PACKOMATIC representative nearest you or write Joliet. Consultation involves no cost and no obligation to buy.

TYPICAL PACKOMATIC PACKAGING EQUIPMENT

Shipping Case Gluing and Sealing Equipment:

- Model D Automatic Shipping Case Gluers with Compression Sealers
- Combination Case Loaders & Side Sealers
- Hand Gluers & Compression Sealers.

Carton Filling & Sealing Equipment:

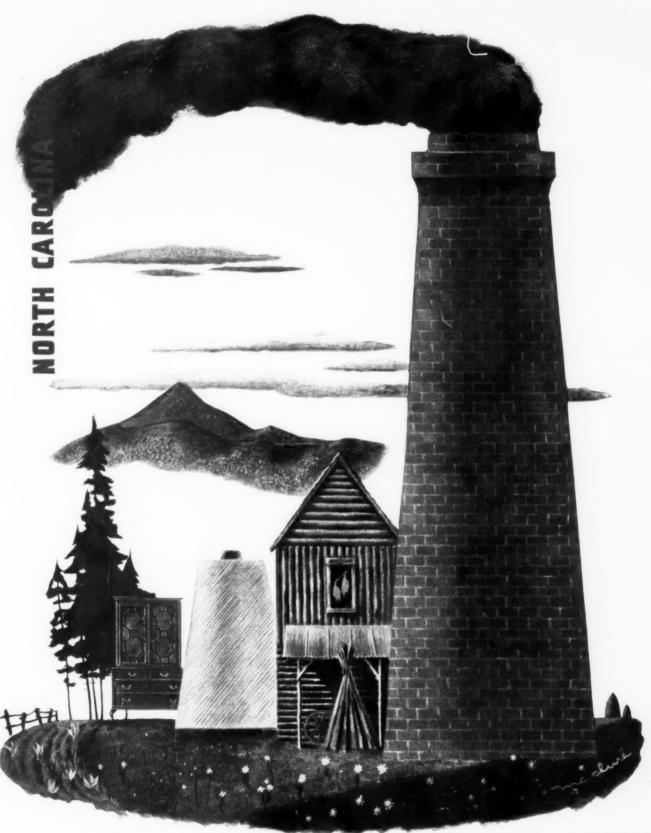
- Telescoping Volumetric Fillers
- Auger Packer-Weighers Net Weight Scales
- Top & Bottom Sealers for individual & standard packages
- · Automatic Case Imprinters
- Serial Numbering (Coding) Devices
- Paper Can cutters, gluers, shrinkers, cappers and conveying equipment

In addition to a wide range of standard and semi-standard packaging equipment, PACKOMATIC is also a dependable source for specialized packaging counsel, design, construction and installation, where unusual carton filling-or shipping case handling-situations present themselves.



Chicago • New York • Boston • Philadelphid • Baltimore • Cleveland • Denver • San Francisco • Los Angeles

Seattle • Portland • Tampa • Dallas • New Orleans



Artist - Herbert McClure, native of North Carolina

NORTH CAROLINA—annual purchases: \$2 billion—mostly packaged.

CONTAINER CORPORATION OF AMERICA





Shh...am I too early?

YES, even though Christmas is December 25th as usual, this year's package and promotion plans are more important than ever. That's why more and more concerns are consulting OLD DOMINION today.

Retailers want the new *individualized* package wraps. Consumer product manufacturers want sparkling new *sales-worthy*

display packages. Shippers want a sure supply of OLD DOMINION "Engineered for Travel" corrugated cartons. Yes, our design and packaging engineers are working on dreams and tinsel now so you'll have a Merry Christmas next year. Why not write for "Christmas Packaging Samples" — Dept. 2.



THE SOUTHERN BOX MAKER WITH A NATIONAL REPUTATION

CELLO WRAPPING

Quicker than a Wink



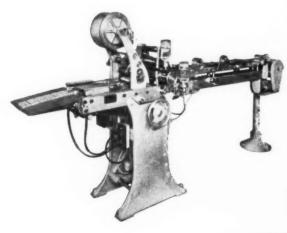
Scandia* wraps 100,000 every 8 hours!

Add the saving in Time, as well as the savings in material and upkeep, and you have the greatest inducement in the world to buy a Scandia!

Less than half-inch overlaps give you positive adhesion on a Scandia! Adjustment or maintenance is far less on a Scandia!

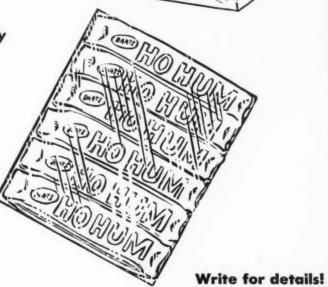


Available in a range of sizes, with or without Tear-Tape attachment, or with electric eye-printing register if desired.







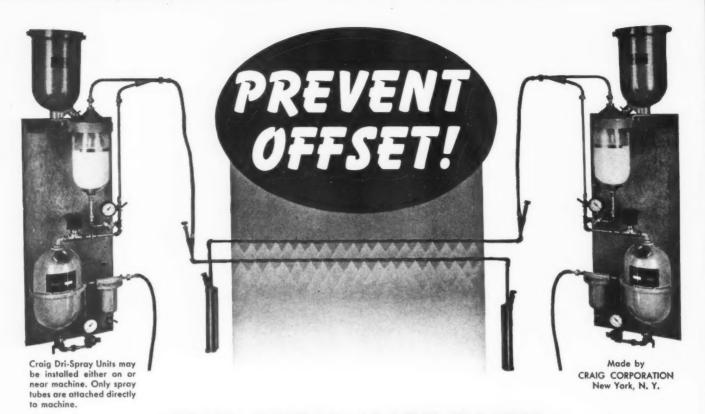


Scandia MANUFACTURING CO.

*manufactured under Bronander patents.

NORTH ARLINGTON

NEW JERSEY



THE NEW IMPROVED CRAIG DRI-SPRAY

Box, carton and package printers can now eliminate all offset troubles on all kinds of stock with the new improved CRAIG DRI-SPRAY. All types of printing can be run without danger of offset: SOLIDS, MULTI-COLOR, GLOSS INKS, OVERPRINT VARNISH, PLASTICS. Used and approved by leading carton manufacturers all over the country.

Exclusive Features:

- 1. No need to stop press can be refilled and regulated while operating.
- 2. Spray tubes mounted on jogger wings, insuring cleanliness.
- 3. Sprays across entire sheet evenly under low pressure no jets, spitting, fog or mist.
- 4. Made for intermittent or continuous spray.
- 5. Dehydrator assures bone-dry filtered air.

Write or call now for complete information.

We are Exclusive National Distributors of the Craig Dri-Spray. Sales Agents in All Principal Cities.

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FIFTY RINGS... fifty Gears



Like many trees in

our own forest reserves, our business has now been growing for fifty years. Thanks to three fundamental factors, that growth has been substantial. These are abundant natural resources and power, fine craftsmanship and the cherished confidence of our customers.

Through a half century of service to the printing, publishing and other major industries, an organization-wide determination to make good paper has guided the steady improvement in the quality of Oxford Papers. It has inspired the development of new products and has expanded the service range of our many coated and uncoated grades.

As a result, Oxford's modern pulp and paper mills and new machines are today more fully prepared than ever to help the buyer of paper meet the growing challenge of his markets for more exacting quality and performance.

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Kitchen Tools

... IN A MODERN CLEVELAND CONTAINER

This nationally advertised EKCOLINE KITCHEN TOOL SET reaches the bride or other recipient in a perfectly designed package. It is one more example of modern packaging possibilities obtained with CLEVELAND CONTAINERS.

11411, 1141

Individuality...eye-compelling attractiveness ... instant åppeal. These, plus mechanical and low-cost manufacturing features, permit endless adaptation to the sales needs of various products.

Do you have products that might sell faster in more modern packages?

Consult our Creative Design Dept. Your inquiry will be given prompt and experienced attention.

Contents

ekcoline

This beautiful Cleveland Container houses the 11-piece Ekcoline Kitchen Tool Set . . . gladly featured by the retailer . . . eagerly purchased by the con-

All-Fibre Cans · Combination Metal and Paper Cans Spirally Wound Tubes and Cores for all Purposes

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PRODUCTION PLANTS also at Plymouth, Wisc., Ogdensburg, N.Y., Chicago, III., Detroit, Mich., Jamesburg, N.J.
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NATIONAL PAPER BOX M

AND COOPERATING SUPPLIERS

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Questions to ask about your wrappers

Are they the best wrappers you can buy for the money?

Do they give proper protection?

Do they have sales appeal?

Does the design and printing need freshening up in keeping with 1949 styles?

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Its unique characteristics make Patapar* Vegetable Parchment the ideal wrapper for delicate foods. It has high wet-strength. It is boil-proof. It resists grease.

For protection, Patapar gives you a wrapper that really helps keep your product fresh—appetizing. And its rich white texture lends beauty and sales appeal.

Patapar can be printed exquisitely with bright colors and appealing designs. Our plants are equipped for printing Patapar economically by letterpress or offset lithography. Our art department will

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If you have a special problem, we can give you a special type of Patapar. In all there are 179 different types to choose from.

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Ideal For

Butter wrappers Ham boiler liners Deep freeze wraps Oleomargarine wrappers Cheese wrappers Can liners

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HANDY GUIDE HELPS SOLVE YOUR PACKAGING PROBLEMS. GET YOUR COPY TODAY!

Here in one handy booklet are the answers to most everything you want to know about collapsible tubes!

Standard Sizes and Necks

8, 10, 12

10.12.14.16

Sizes, openings, closures — everything to help you choose the right tube. Deals with problems like these:

- Which tube metal is best for your product -tin, lead, tin-lead alloy, aluminum?
- What is proper tube length and diameter?
 What are proper tube proportions?
- What size tube carton will the Food & Drug Administration approve?
- Should you use special tube linings?
- What is the right size, right shape opening?
- What type closures are available?
- What message can be embossed on shoulders?
- What facts should you remember in planning tube decoration?
- What tubes are available for one-time use or sampling?

Save time and trouble! Keep this handbook handy!

A typical questionand the answer!

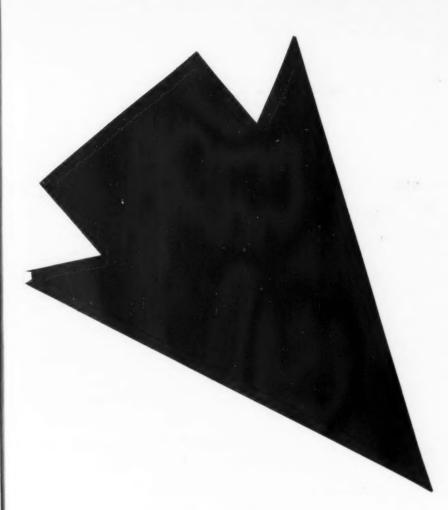
What are standard tube sizes and necks?

WRITE Sun Tube

Specify Handbook A

Sun Tube Corporation, 181 Long Avenue, Hillside, N. J.

Chicago 3, Ill. James L. Coffield, Jr., 105 West Adams St. Detroit 2, Mich. Joseph P. Giroux, 2970 West Grand Blvd. St. Louis 1, Mo. M. P. Yates, Arcade Building Cincinnati 8, Ohio Ralph H. Auch, 3449 Custer Road



This is PYRODESCENT

over please . . .

This exquisite paper is

PYRODESCENT

Few other packaging papers even approach the beauty of this magnificent irridescent paper. It's daring, it's delightful . . . It's ultra-smart.

PYRODESCENT

comes in eight adaptable colors ...

White Blue Ivory Lavender
Pink Red Green Black

A plain finish and five embossed patterns are available in 26" rolls — two reams to a roll. The working, folding and glueing characteristics of PYRODESCENT are excellent.

Sample sheets of PYRODESCENT in all colors, embossed in various patterns, are yours for the asking. Business letterheads, please.

HOLYOKE COATED & PRINTED PAPER COMPANY, INC.

129 BLEECKER STREET NEW YORK 12, N. Y.

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SAVES UP TO 60%

by using Bemis TITE-FIT TUBING

This recent letter from a Tite-Fit Tubing customer shows what big savings are realized when this wasteeliminating method is used.

This versatile tubing fits almost any shape and a wide variety of package sizes. One roll may cover many different diameters and lengths without waste.



BEMIS BRO. BAG CO.

Brooklyn 32, New York



Canadian Bag Co., Montreal, and the Ontario Bag Co. Port Colborne, Ontario, are licensed manufacturers of TITE-FIT TUBING in Canada.



Bemie Brothers Bag Company Second Avenue and 51st Street Brooklyn 32, New York

Gentlemen:

We have used Tite-Fit Tubing since its inception over 10 years ago. Accurate time study figures show our savings in labor costs on regular packaging operations to be as high as 33% to 60%.

In addition, Tite-Fit Tubing has also provided the superior covering that is required for our export packaging. We are particularly pleased by the favorable comment we receive from our customers on the neat, secure bales in which our merchandise is shipped.

Very truly yours,

March a Maruit

Thermoid Commany

Perhaps you will find equally large savings with Tite-Fit Tubing. It's worth investigating. Get the facts. Mail the coupon now.

MAIL COUPON NOW

BEMIS BRO. BAG CO., 5130 Second Ave., Brooklyn, N.Y.

- ☐ Send descriptive folder on TITE-FIT TUBING
- Send sample. Our packages are approximately _____inches in circumference. (Please specify).

Name_

Firm

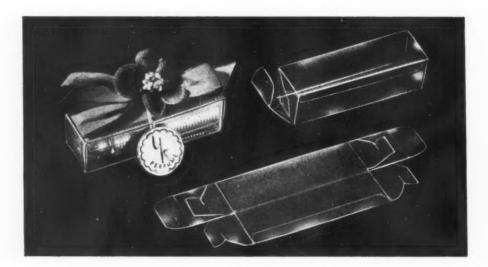
Street

City__

Zone___State

ONLY 1 CARTON

Cuts cost of your clear-plastic packaging in these 3 ways



Of all the rigid plastic cartons made today, the PLASTAFOL CARTON* is the *only* one that folds flat and "sets up" like an ordinary folding paperboard box.

Made of a single, strong piece of top-quality transparent plastic, the PLASTAFOL CAR-TON offers you 3 important savings which directly result from its exclusive folding design.

1. COSTS YOU LESS in small sizes than any other rigid transparent carton. Thanks to the patented Plastafol process, we can supply you with mass quantities of strong beautiful cartons at unbeatable prices. Ask for a quotation!

2. LOWER SHIPPING COSTS. No freight charges based on bulk—because Plastafol Cartons are *shipped flat*.

3. Plastafol Cartons fit where *one* nonfolding carton will. Conveniently stored until actual use, they "set up" fast.

A year of use in trade and industry has proved the value and dependability of PLASTAFOL CARTONS. Especially popular in the cosmetic field, they are available in a variety of designs. Ends may be tucked, glued—or locked for extra package security.

 $\ensuremath{^{*}}$ Trademark. The Plastafol Carton is protected by present and pending patents.

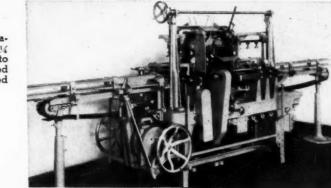
Write or phone for information, technical help, ideas and prices!

Troth • Bright • Page

Paoli, Pennsylvania

Phone Paoli 1846

The Model 65 BEE-LINE applies labels up to 7 inches high and 5¼ inches wide to containers up to 13 inches high. Variable speed drive provides for 30 to 65 labeled containers per minute.

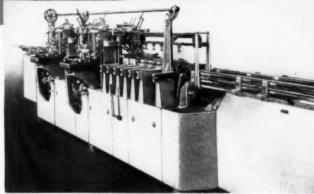




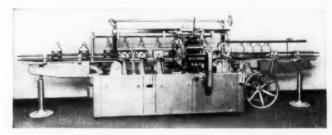
BEELL LECONOMY Your labeling for ECONOMY PRODUCTION

QUALITY

The WORLD BEE-LINE Labeler conducts your glass containers, however light or delicate, straight down a bee-line without traffic jams, detours or collisions. Gently they are dressed up and ready to go out in public and do you proud, with body labels, front or front-and-back, and neck labels if desired, precisely, firmly and smoothly applied to a wide range of container sizes and shapes.



The Model 120 BEE-LINE equipped with twin labeling station provides any desired production from 60 to 120 containers per minute, handles same range of sizes as the Model 65.



The Model 40 BEE-LINE handles gallon and half-gallon and smaller bottles, jugs or jars, labels up to 8''x7'', containers up to 8'' diameter.

"YOU GET THE BEST LABELERS IN THE WORLD"

ECONOMIC MACHINERY COMPANY

Builders of World Automatic and Semi-Automatic Labelers for Every Purpose

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Los Angeles Denver London Montreal Sydney, Australia Henolulu, T. H.



HERE is an idea of the diversified types of lithographed metal cans produced by the big Heekin Can Company. There are hundreds of other designs and types of Heekin Lithographed Cans produced for manufacturers of all sorts of products from chemicals

to candy . . . potato chips to cookies . . . lard to tobacco, etc. Since 1901 Heekin Lithographed Metal Containers have carried famous products to market. We would like to discuss your metal packaging problems.

HEEKINGRAPHED CANS WITH HARMONIZED COLORS

THE HEEKIN CAN CO. CINCINNATI 2, OHIO

- Here Again... Another Use-wise Function of CLAREMONT Flock!

Papers (BOX AND CARDWEIGHT)

FLOCK

THE VELVET TOUCH
AT 1/RD THE
//3 PRICE

A Pinch of Flock... A Piece of Paper

A "Pound" of Rich Allure!

Are Pound a

Paper processors are capitalizing on flock's quality to simulate rich fabrics at fractional cost. Unexcelled for display draping, gift packaging, jewelry and candy boxes, etc. Check this exciting new medium with your box maker, paper merchant or flock processor.

For complete details concerning flock and its uses, write us direct — today!

New Applications for Claremont Flock are Popping Fast

Box papers, luxuriously surfaced with richly colorful flock, are carried as roll or sheet stock by the better-quality paper merchants. Upon investigation, you'll find too, that their best-quality velvetized offerings are processed with Claremont Flock! It is uniform, responds perfectly to adhesive preparation and forms a deep-pile foundation that won't fuzz, separate, crack or rub-off. Claremont Flocks (cotton, rayon, wool) are champions in their art!

CLAREMONT

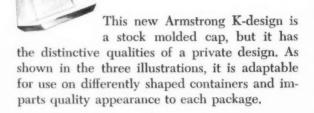
WASTE MANUFACTURING COMPANY

CLAREMONT N. H. *Above illustrates individually cartoned roll of "Rayon Velour Paper"
as manufactured and processed by
flock Embossing Corporation, 598
Broadway, New York City...Available in 25 spectacular colors...Rolls
are 40" wide; lengths approximately
67 yards.

CLAREMONT FLOCK ... the Plush that Sells!

A versatile standard cap -

but looks like a Private Design



The new K-design cap has all the advantages of a molded cap—won't fade—noncorrosive—finished to a high luster. It is made in all popular sizes to fit standard containers. Its versatility gives you the distinctiveness of a private-design cap, yet you pay for only a standard cap.

ARMSTRONG'S

Artmold

PLASTIC

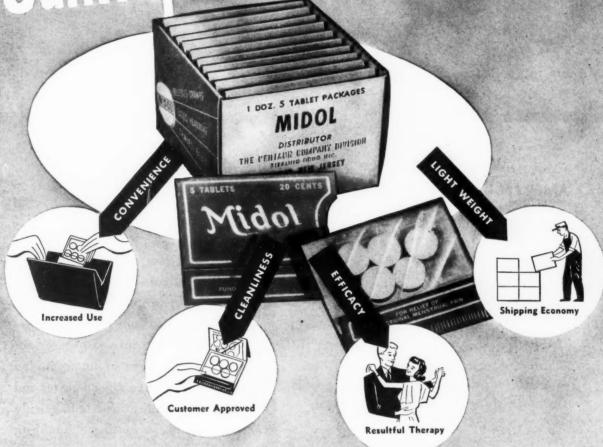
CAPS

Try this new K-design cap on one of your containers or one of your lines. See how it freshens the package. For samples, prices, and further information, write Armstrong Cork Company, Glass and Closure Division, 5902 Prince Street, Lancaster, Pa. Available for export.

WEST COAST REPRESENTATIVE: I. F. SCHNIER CO., INC.
SAN FRANCISCO 7 AND LOS ANGELES 12

more than merchandise in this package

Sanitane-Seatiffe small-unit package



SMART MERCHANDISING You provide for your product far more than a fine container when you adopt the Sanitape-Sealtite Small-Unit Package—you give it the tremendous impetus of customer convenience and satisfaction—the vital sales-aid of a low-priced, small-unit package—and the important advantage of convenient dispensing and effective point-of-sale display—Smart merchandising from start to finish, at a cost which will surprise you. Whether your product be pill, capsule, cream or powder, the small-unit package (1 to 5 tablets or in measured doses of powder) is a sales aid which wins consumer-preference and continued acceptance. We shall be glad to give you details pertinent to your particular situation.

IVERS · LEE COMPANY · 215 CENTRAL AVENUE · NEWARK, N. J.

* Sanitape-Sealtite is a unique method of packaging pills, tablets, capsules, creams and powders, by which each unit or unit dose is sealed in its own air-tight compartment—assuring convenience, protection and maintained efficacy. Packages, methods and machinery fully covered by United States and Foreign Patents, and Patents Pending.



Note the name well...

AMERAN resin paste

... a new PLASTISOL developed by American Anode for improved continuous application . . . dipping, coating or spreading

WHAT AMERAN RESIN PASTE CAN DO FOR YOU:

This new plastisol may be the long sought answer to your problems. It makes available to processors plastisol compounds that are free from air bubbles. It can be used to make coatings or flexible sheets — maintaining permanent lustre. No solvents; no fire hazard; no recovery problem. It can be compounded to give you the qualities you want—oil resistance, acid-resistance, chip proofness, full variety of fast colors, including white.

SOME OF THE PROFITABLE WAYS THIS NEW PLASTISOL MAY BE USED:

Ameran Resin Paste may be used easily and economically for coating metal and wire, wire baskets, plating racks, pipe linings, wood, textiles and paper. It can also be used for the manufacture of unsupported films and to make dipped gloves and other film applications. It has ready possibilities in casting or molding finished items, such as toys, gaskets and industrial boots. These uses may suggest even more to you.

American Anode engineers will gladly work with you in laboratory tests. They'll welcome an opportunity to study your present problems or products—help you find profitable uses and improvements with Ameran Resin Paste. For complete information about this new plastisol, please write Dept. AC-1, American Anode Inc., 60 Cherry Street, Akron, Ohio.

AMERICAN ANODE

CRUDE AND AMERICAN RUBBER LATICES, WATER CEMENTS AND SUSPENSIONS

MODERN PACKAGING

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Another Drama in PLANNED PACKAGING

Farrington

For 13 years—since Schick's early days—this famous shaver has "met the public" in Farrington Packaging.

We've put other fine products on dress parade for almost half a century... each in a Farrington box designed, engineered and built for it alone. That's the kind of planned packaging your product deserves.

The cost will surprise you. Pleasantly.

FARRINGTON MANUFACTURING COMPANY

General Offices: 80 Atherton St., Boston 30, Mass. Canadian Plant: Farrington Mfg. Co., Ltd., 1191 Bathurst St., Toronto 4

This package sells fresh fruit



Oranges, packed and displayed in the new Kellogg *Produc-Pak*, are the salescenter of attraction in many of the country's leading chain and independent super-markets. Moistureproof and liquid tight, Kellogg *Produc-Paks* fully protect their contents . . : are strong, durable, easy to handle . . . cost less than conventional net bags.

The idea has been quick to catch on . . . and spread to a farm-full of other fruits and vegetables. Now the shopper always sees what she's buying through window-clear Pliofilm,* needs waste no time picking and choosing. Unit pickup sales quicken . . . it's a big improvement all around — at no extra cost!

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Here is another example of Kellogg packaging sense; more proof that when new packaging ideas are born, for anything from soup to nuts, Kellogg has the men and equipment to bring them up right. Why not take your packaging problems to Kellogg?



KELLOGG also makes Green Label Expansion Bags — perfect bags for packing dried foods.

They flare open easily, clear to the bottom, with a one-handed motion . . . fill quickly by shell, scoop or hopper-spout because they stay open . . . fold easily with a quick twist to cut time of closing operation in half.



KELLOGG CONTAINER DIVISION

the Goodyser Tire & Rubber Compon

CONTAINER MANUFACTURER • PRINTING • CONVERTING • Cellophane • Pliofilm • Glassine Foils • Vinyls • Polyethylene • Rigid and Flexible Acetate • Coated and Specialty Papers

Modern packaging



Vol. 22 No. 6 February 1949



EVERY ADVANTAGE the grocery supermarket has developed through the years—the basket, the check-out, the island, the counter display to catch impulse buyers—is utilized by the selfservice drug store. This is Wrigley's Self-Serve Super Drugs in Detroit—our model for study.



Self-service 'drugs'

THERE'S A REVOLUTION BREWING IN THIS CONGLOMERATE RETAIL FIELD;

HERE ARE THINGS EVERY PACKAGER SHOULD KNOW

The drug store has become big business. Its emergence as a major distributive outlet for hundreds of non-drug as well as drug items; its pronounced trend to larger, highly departmentalized units and chain organizations; new developments such as the self-service type of super drug store are factors in this field having important implications for packaging.

The development of the self-service drug supermarket is worthy of special attention, for it poses to the manufacturer of drugs and related products the same questions that have so profoundly affected the packaging of food products during the last two decades. In self service, the package is the only salesman; it must tell its own story and sell itself. The product, regardless of

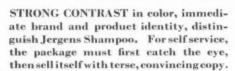
its merit, is at the mercy of the stock boy in competing for advantageous display position and subject to the impulse of the browsing shopper. Such questions as size, convenience, price marking, typography, color and shelf pattern must be considered in a new light. Fortunately, the food industry offers a valuable precept.

How drug business has expanded

Before examining the self-service retailing of drugs and related items, a brief picture of the retail drug business appears in order. Evidence that the corner drug store has indeed become the new American shopping center is a matter of statistical record. In 1947, we are told, cash registers in 54,000 drug stores throughout the

These are the packages a self-service







PLEASING DESIGN, effective use of white space, make the Rayve design—used for both the new home permanent and for shampoo a standout super-drug seller. Dominating colors are brilliant red and distinctive blue.



FOIL'S GLITTER attracts basket shoppers, carton copy tells them the story—on all four panels, to simplify display stacking on shelves.

nation rang up sales totaling \$3,617,000,000. This represented an increase of 21% over their 1945 volume. During the years from 1939 to 1947, retail drug stores' sales climbed over 130%.

So-called independent drug stores number more than 49,000 and do approximately 77% of the business in the drug field, according to industry figures. At the present time there are some 750 chain drug organizations, owning 5,000 store units. Although the chains operate only 11% of the total drug stores, their outlets get about 23% of the volume—primarily because they usually control the larger, higher volume stores in large shopping areas.

How significant is the trend to "super" stores by the big drug chains? Here some figures on Walgreen Drug Co., one of the nation's largest chains, are interesting. In 1937 Walgreen operated 510 stores with average annual sales per store of \$131,164. In 1947 Walgreen operated 415 stores (a reduction of about 20%), but sales per store reached \$364,916.

Authorities who predict that the super drug store is going to revolutionize the marketing of all lines sold through drug outlets point to some recent observations on the subject by executives of Rexall, which has approximately 8,500 Rexall Agency units in this country:

"The superstore is a challenge to every drug store doing business along the old, traditional lines. Profitable survival will depend on increased and improved facilities—not only in the standard drug store lines, but by the addition of extra departments and different merchandise.

"The superstore is here in earnest and here to stay. It marks a definite transition in drug retailing; make no mistake about it. Superstores will increase their gross volumes and dominate the retail drug business in many communities . . . Superstore operations will be the outstanding development in tomorrow's

merchandising in the drug field," according to Rexall.

Paralleling the experience of Walgreen, Rexall closed 61 of its own stores and the trend continued strong during 1948. J. W. Dart, Rexall president, in a message to stockholders put the matter bluntly: "Your company has closed a large number of stores consistent with its policy of eliminating small and marginal stores in favor of superstores."

By "superstore" the drug trade does not necessarily mean self service. The self-service drug stores are in the minority at present—but the performance of the few pioneers has been so spectacular and the adoption of this method of selling to a general line of packaged merchandise so logical, that the trend seems almost irresistible. At any rate, the forward-planning packager will be wise to regard it as such.

The hard facts of economic life underlie the steady transition of the chains to larger stores. In general, the larger the store unit, the heavier its volume on non-drug items—and on this type of merchandise in particular, the chains are doing a terrific job.

With the modern drug store constantly taking on new types of merchandise and departmentalizing its wares to facilitate orderly selling, the possibility of self-service operation is receiving careful scrutiny. High personnel costs and the proved fact that customers will buy more if left to their own devices are two of the more potent arguments favoring such a move.

The self-service drug store—either as a separate store or as a department in food supermarkets—is emphatically here, even though on a small scale at present, and there is no reason to doubt that it is due for a tremendous and rapid expansion.

Like numerous other self-service innovations, this type of drug outlet appears to have had its earliest acceptance on the West Coast. The fabulous Webb

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drug supermarket operator likes best







WIDELY ADVERTISED, Burma-Shave needs nothing to sell it but the billboard display of its name, in yellow and white against blue. Here use directions are minor and are relegated to small panel.

FOODS CAN SELL in a drug store. DRAMATIC WINDOW treatment makes Success of this Lederle cereal this package popular in self-service drug stems from well-balanced design stores, where there is no sales clerk and use of back panel to an- around to call attention to sensational swer questions about nutrition. new and easy method of hair waving.

drug operation at St. Petersburg, Fla., also appears to have been one of the pioneers in this development.

One of the first such stores to make its appearance in other parts of the country is Wrigley's Super Drugs in Detroit, Mich., which was launched late in 1948 by Jack and Nate Lurie, operators of a chain of 22 Detroit grocery supermarkets. The experiences of this most advanced store provide a valuable packaging study.

Evolved from food supermarket

Wrigley's were handling about 200 fast-moving counter drug items in their grocery supermarkets, but it was felt that the operation could be greatly expanded in a self-service type of drug outlet. The drug unit was founded on the belief that customers trained in selfservice buying of groceries would willingly follow the same habits in buying drugs and other "drug store" items if given an opportunity. Also involved was the legal extent to which sale of drugs could be handled in a grocery type of retail outlet.

The Wrigley drug unit, located in a high-income residential section of Detroit, directly adjoins one of the chain's grocery supermarts. This arrangement permits customers to move readily from one store to the other without leaving the building. Otherwise the drug operation is a separate store.

The store presents an inviting appearance with its completely visual front and clear glass doors. Interior design treatment strikes a modern note, with red and green asphalt tile floor and cold cathode tube lighting and integral spotlights at intervals to dramatize the displays. More than 10,000 items are stocked.

Functional and uncluttered, the interior of the Wrigley super drug store is a far cry from the traditional drug outlet. Gone are the old-style wall cabinets, reaching practically to the ceiling and accessible in their upper reaches only by means of a wheeled ladder. In their stead are modern wall racks with six shelves, sloped gently upward to prevent toppling and to improve label legibility. Racks have recessed bases.

General categories of products stocked in the wall shelves include toiletries, infant needs, patent medicines, laxatives, vitamins and dental and shave needs. At the rear of the store is a prescription counter with a registered pharmacist on duty. Displayed on regular grocery-type gondolas within the self-service section are six other merchandise classifications—toys and games, stationery and school supplies, picnic supplies and notions, household hardware, glassware and electrical supplies, and pills, tablets and household remedies.

Just within the entrance to the self-service section is the cosmetic and toiletries counter or island. An experienced demonstrator is in charge at rush hours.

Large, legible signs over the wall-shelf sections and atop the sales gondolas help guide customers to the type of merchandise desired. Within the respective sections, product classifications are further divided into plainly marked areas, such as "Creams, powders, lotions," "Cold remedies," "Personal hygiene," etc.

Julius Spiel, manager of the new store, emphasizes that in the self-service type of selling, shelf and counter space are far too valuable to be cluttered up with slowturnover items. This explains the signs, "What you don't see-ask for," which appear at frequent intervals throughout the store. Products on which there are but infrequent calls are stocked in the back of the store and may be had on request.

Where the size or nature of the product necessitates additional space or special racks, etc., suitable provision is made directly in the shelving. Thus a short section of one of the lower shelves is left out to provide adequate space for large heating pad boxes and, in the case

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of toothbrushes, compartmented "honeycomb" racks are built directly into the shelves. Where the small size of the packages creates a display problem, small subordinate shelves are utilized to elevate them so they are not lost behind larger items.

Borrowing a page from its experience in the grocery supermarket field, the Wrigley organization equipped the new self-service drug unit with shopping baskets for the convenience of patrons. The customer picks up a basket on entering the self-service section and leaves it at the check-out counter when purchases are tabulated and bagged or wrapped. It is not surprising that the basket encourages additional purchases.

Mr. Spiel calls attention to several significant points relating to buying habits:

Average purchases run three or four times those made in the conventional type, clerk-service drug unit. Whereas the standard drug store, with its harried and frequently impatient clerks, gives the customer little opportunity to make unscheduled purchases, the self-service arrangement leaves the patron free to examine the wide range of merchandise without sales pressure and to make her own selections. A customer left to browse will almost invariably make purchases over and above those originally planned.

Experience to date in the Wrigley drug unit indicates that heaviest sales are made during the afternoon rather than in the early morning and evening, as is customary in standard drug stores. Apparently in self-service operation, the customer is more inclined to shop for the complete drug-store needs of the family rather than engaging in sporadic, intermittent buying.

The package questions

Specifically, what new demands will self service of drugs and related items impose on package design, construction and display?

If the Wrigley store can be taken as typical, the use of counter displays and similar point-of-sale materials will be strictly minimized in self-service drug stores. The reason is simple: substitution of racks for display cases and counters leaves very little space for this type of material. Since the appeal of this kind of selling depends largely on mass display of a wide range of products, the tendency will be to utilize all possible space for actual merchandise. Result—displays and point-of-sale materials may be relegated to a minor role. In any event, they will have to be physically adapted to meet the new conditions present.

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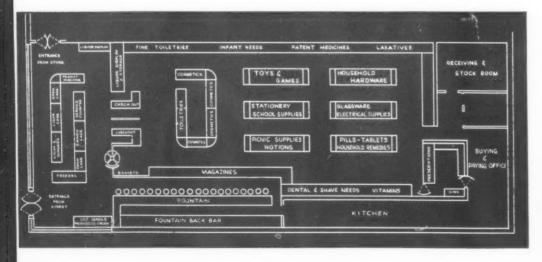
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Obviously, if a product is to hold its own in this type of selling, it must be packaged informatively, conveniently and attractively. It must be its own salesman. Simplicity and clearness of labeling, with forceful presentation of brand name, appear to be absolutely vital for the self-service sale of drug products. In most instances, the advice of a clerk will not be sought, except in the case of unfamiliar merchandise. The current food trend toward limiting the display panel of the package to trade name, company identity and brief product description, and utilizing the back or side panels for detailed legible use instructions and sell copy fits in well with this type of merchandising.

Type size and selection, color contrasts, use of white space for display impact and related questions should be thoroughly studied in designing self-service drug packages. It might also be borne in mind that very few customers have perfect vision; the manufacturer who wants his product selected would do well to bring out the trade name prominently, possibly making use of reverse plates and other attention-getting devices. Use instructions, dosage, product count and related data should be explicit and easy to read.

Product illustrations, drawings or photos showing methods of usage, visibility types of packages, etc., merit serious consideration in this field, particularly for new products or new types of products with which the buyer is not familiar. Here again, the important thing to remember is that the package must be able to put itself across without the help of a clerk and against the silent competition of neighboring items.

Recognizing that self-service selling means mass displays in which products of many manufacturers will be competing for attention, alert companies will guard against handicapping their wares with a "dated" package. Over-elaborate designs which got by on the reputation of the product in the clerk type of selling



FLOOR PLAN of Wrigley's store shows departmentalizing and strategic placement of island groups. Fountain, cigar counter and liquor department are service departments placed outside the self-service turnstiles.

operation will find the going tough in self-service stores.

Since packaged items must be individually priced to eliminate any possible confusion on the part of the buyer, an adequate pricing patch or panel is highly desirable. Examination of packages, bottles and other containers on the Wrigley shelves turned up few which had this feature, although it has become quite common in the grocery package field.

Whatever the packager can do to simplify this pricing problem will be appreciated by the self-service drug outlet. Many of the packages in the Wrigley store are priced with a china marking pencil, but the marking leaves much to be desired. Many packages lack sufficient open areas for such marking and some have transparent overwraps on which the price shows up only faintly. Price tags, self-adhering price labels or frosty patches on the overwrap which will take marking clearly are some of the answers suggested by Wrigley.

From the standpoint of store display, the advantage seems to be with a relatively tall, flat package whose front panel dimensions permit use of fairly large type on the trade name. Small, flat packages have a hard time; they must be propped up to get any display value and avoid being lost in the shuffle. Ideally, a package should be readily identifiable from any angle, so that it can be spotted regardless of its position on the shelf.

Round boxes, such as powder boxes, should be identified around the edge as well as on the top; otherwise it may be necessary to display them on edge. In this position, they tend to roll and must be blocked by other packages.

Although the new Wrigley unit has not yet had an opportunity to assemble significant data on pilferage losses, Mr. Spiel declares that pilferage will definitely be a problem. This applies particularly to small packaged items of relatively high value.

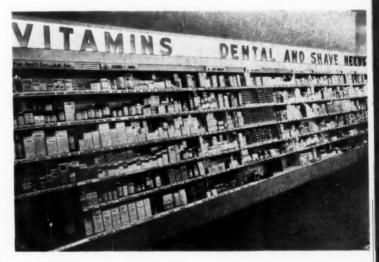
While the packager cannot prevent patrons from trying to "lift" complete packages from the open shelves and tables of a self-service store, he can make it more difficult for them to rifle parent containers by equipping them with a rip cord opening device, locking tabs or a cellulose-tape seal. The very size of some packages will afford protection against shoplifting.

Distinctive family-design treatment covering a group of products by the same manufacturer should be a decided advantage in self-service drug merchandising. If the customer is going to make the selections himself, identifying trademarks, symbols, etc., should assist him in making his purchases without delay and will also help him to associate related items made by the same firm. Provided, of course, that product quality is uniformly high, family-design treatment should be an important aid to related selling in self-service drug outlets.

Experience to date is, at best, fragmentary, but the basic principles are clearly defined. For the average manufacturer of any packaged product merchandised through drug stores, it would pay to take a trip to Detroit and visit Wrigley's. A good alternative would be a thorough study of the packages and display methods in any up-to-date food supermarket.



USE OF BASKETS is encouraged—a proved sales stimulant. It is known that shoppers fall easily into the habits of grocery super shopping.



NO SALESMAN HERE to push a "special" or new product; the package carries the whole burden. Shelves are tilted slightly to hold packages securely with their faces at easy eye angle.

CENTER ISLANDS are used, in best food market style, for bulkier items and mass displays.



Consumer education

GENERAL MILLS USES MOVIES, RADIO AND AD COPY TO BUILD

APPRECIATION FOR PACKAGING'S CONTRIBUTION TO AMERICAN LIVING

The value of an investment in scientific packaging has long since ceased to be a question to any enlightened manufacturer. But what about the consumer? Does she appreciate the effort that has been made to safeguard the product and deliver it to her with the maximum of convenience and economy?

Is the manufacturer capitalizing on this important public-relations opportunity?

Believing that the possibilities have not been fully exploited, General Mills, Inc., Minneapolis, has launched an intensive campaign on the consumer level to tell the story of modern, scientific packaging and its contribution to American living. The techniques employed will be of interest to many other producers of consumer products.

General Mills' opening gun is a bright motion picture, entitled "Don't Forget Your Package," which was first presented last fall at the National Food Editors' Conference in New York.

Scripted and narrated by Mrs. Marjorie C. Husted, consultant to General Mills on services for women, the film begins with scenes in the general store of great-grandmother's day; switches to a cartoon description of "what the well-dressed breakfast cereal is wearing this year;" traces the scientific development of a new package in the research laboratory and ends with a plea to

safeguard and follow the carefully prepared directions printed on package wrappers.

In introducing the film, Mrs. Husted compares package development with the most important scientific achievements of our times. "We think of modern, scientific research," she says, "in terms of atomic energy—the conquest of space . . . travel to new planets . . . the building of more machines for ever greater destruction. But if we look around us we can find the constructive forces to emphasize. There is faster transportation—by automobile, train and plane—and there's easier communication through mail, telephone and radio. But there is one other development in our modern life that has brought about great cleanliness, sanitation, convenience and ease of living. I wonder if you can think what it is? I mean the modern packaging of foods.

"I'm sure we don't often realize it," she says, "but hasn't food packaging raised our standard of living? It makes available to the simplest homes an infinite variety of foods for attractive, well-balanced meals—a greater diversity of foods than even the wealthiest and most privileged families could command a hundred years ago. Yet Mrs. Homemaker takes for granted the scientifically designed modern package that she sees every day in her food store."

Movie dramatizes Miss Cheerio's wardrobe



Miss Cheerio slips into filmy wax underthings . . .

suffers some rough treatment on production lines . . .

As a cartooned "Miss Cheerio," representing General Mills' ready-to-eat oat breakfast cereal, performs on the screen, "suffering" rough handling during shipment and the "tortures" of General Mills' "weather cabinet," Mrs. Husted gives a running commentary on the product's "attire." Her narration is light and fast-moving, like these introductory lines: "I want you to meet Miss Cheerio! No Mother Hubbard for her! The clothes she wears must be up to the minute in style—and in practicality, too... Here is Miss Cheerio slipping into the newest filmy underthings of protective wax. They will help keep her fresh and crisp."

Later, while the picture follows step by step the development and testing of a package in General Mills' Research Laboratories, Mrs. Husted explains its prog-

ress in the same popular style.

"And what do women do in their homes?" she asks. "Do they take advantage of all the work and research that has gone into the making of these packages?" She answers her question with pictures of a typical young bride who tears the wrapper from a package of General Mills' apple Pyequick, completely destroying the directions printed on it. In a recent survey, she pointed out, "only one woman in 30 really observed and followed directions completely." Yet the package will help every woman to turn out a perfect pie.

"Homemakers," Mrs. Husted concludes, "hear all too little about the smart new packaging of foods which makes daily life so much easier and pleasanter for them. It makes possible our nation-wide distribution of foods—more varied and nutritive meals—more appetizing menus with far less work. Actually, it is a great gift brought about by the endless research of modern business. It puts back into the homemakers' pockets and their family budgets untold amounts each year. For these smart new packages prevent the waste of food

and its functions



puts in trying moments in humidity testing room.

and the loss of time. They mean economy, ease, efficiency—and good eating."

General Mills followed up the film's initial showing in New York with a Minneapolis presentation before 74 of the company's grocery-products salesmen, winners in a national sales contest. The company hopes that the picture's message will filter through editors and these sales representatives to consumers throughout the country.

Although "Don't Forget Your Package" was pre-





HOUSEWIVES ARE WARNED not to tear off wrapper in such a manner as to destroy carefully prepared instructions. It's easy, the movie shows, to remove a wrapper intact, preserving valuable printed information for reference.

pared mainly for the New York conference and has since been disassembled, General Mills packages are being spotlighted for the public by an unpretentious but continuous program, including inserts in advertisements and radio commercials. Here, for example, is part of a commercial that has been repeated many times on network shows:

"And listen—here's another tip on avoiding food waste. At the breakfast table—after you have served Cheerios—be sure to fold up the waxed inner-wrapper. You've probably seen that waxed inner-wrapper inside the Cheerios package dozens (Continued on page 184)

SECOND OF A SERIES



On this month's cover . . .

Uneeda Biscuit

NOMINATED FOR PACKAGING'S

HALL OF FAME BECAUSE:

- As the first widely advertised paper package assuring freshness and quality, it is the symbol of packaging's progress up from the cracker barrel
- It created new respect for brand names and trademarks
- It set a new national pattern of shopping habits for food products
- Its protective structure has been a model for study by two generations of package technologists
- For exactly half a century, it has been one of America's top-selling brands

Uneeda Biscuit represents the cornerstone of a modern business philosophy.

At the turn of the century, it demonstrated to the whole world, perhaps more forcibly than any other grocery item, how an anonymous food product could be put into a protective package, given a name and trademark and, through intensive advertising of that name and trademark, win national acceptance for the freshness and quality for which the maker was responsible.

The Uneeda Biscuit package, which this year celebrates its Golden Anniversary, was the first that kept crackers fresh until they were eaten. Prior to the introduction of this waxed-paper-lined carton, about the only protective food packages were tin cans too expensive to be used for a small quantity of crackers sold at a popular price.

Uneeda Biscuit was the first cracker ever to be packaged and sold nationally under a single brand name. By 1900, a year after its introduction, when sales were topping 10,000,000 packages a month, all other packaged crackers would scarcely have totaled 500,000 a year.

This little food package that provided the essential tool for a national advertising campaign led a procession of changes in grocery merchandising technique that have not stopped with almost 100% packaged supermarkets. Following Uneeda Biscuit every kind of bulk food product started moving out of bulk boxes and barrels into clean, neat, convenient packages—bread, milk, butter, cheese, sugar, lard, flour, rice, molasses, pickles, coffee, tea—now all packaged and advertised under the brand names of those packages.

Within its own company, Uneeda Biscuit has been the pacemaker for some 200 packaged products which are today producing sales at the rate of \$290,000,000 a year—a pacemaker for a company that employs approximately 30,000 people, buys \$120,000,000 worth

CONSTRUCTION of the protective In-er-seal package today is essentially the same as in the beginning—a sheet of waxed paper placed on a carton blank, the two folded and interfolded together as a single unit, completely enveloping contents. Overwraps are secured with end seals.





FOR 50 YEARS the Uneeda Biscuit package has stood the test of time without a basic design change. Note modern feeling of sans serif lettering, unaltered on today's packages. Even Adolphus Green's suggestion of a reproduction of the cracker on the package (originally on end seals) has been preserveda full color picture of the appearing on cracker now all side panels (see below).

of volatile commodities a year and accounts for about a third of the cracker and cookie business in the country.

During recent years Uneeda Biscuit has had to give up first place in volume to more widely preferred types of crackers the company makes-the newer Ritz* cracker now enjoying an annual sales volume of \$25,000,000. Yet, in its own right, Uneeda Biscuit still produces sales counted in millions of dollars—and the Uneeda Biscuit package is the basic structure of practically all boxed cracker and cookie products except those, such as Ritz, Barnum's Animal Crackers and others, which are dump-packed into end-opening cartons.

No company has told its story of "up from the cracker barrel" better or more often than National Biscuit, or can tell it over again with such enthusiasm. One of the reasons may be the convincing records so carefully preserved by a man whose business career, starting in 1901 in a law office where National Biscuit Co. was a client, practically spans the history of the company. That man is Roy Everett Tomlinson, who rose to president in 1917 and only recently relinquished that post in 1945 to act as chairman of the board. Mr. Tomlinson points to photographs—now hanging on the walls of the executive-office anteroom—of Adolphus W. Green, National Biscuit's first president, and Frank M. Peters, whose mechanical genius had so much to do with the

development of the first Uneeda Biscuit package. From a strong box, Mr. Tomlinson can produce the original letters and documents that reveal the origin of the Uneeda brand name, the In-er-seal trademark and the Grolier border design of the package.

> The story of Uneeda Biscuit begins with a letter written on Aug. 15, 1898, by Victor Lawson, then publisher of the Chicago Daily News, to Mr. Green, a Chicago lawyer, who had put together the newly formed

END-SEAL TRADEMARK was revised in 1941 and registered in its present form with the word, "Nabisco," in oval. Color illustrations of the crackers were put on the packages in 1946.



^{*} Uneeda and Ritz are registered trademarks of National Biscuit Co.

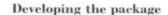
consolidation of three large cracker-baking companies into National Biscuit Co., introducing Henry N. McKinney of the advertising firm of N. W. Ayer & Son, Philadelphia.

Then, as today, the cracker business was a highly competitive one. Mr. Green, who soon gave up law practice to run the newly formed company, realized quickly that he must scrap most of the brands used by the 150-odd bakeries of member companies and concentrate on certain chosen products which would be identified with the new company.

At that time crackers were sold in barrels. A neat, sanitary package to keep crackers fresh until eaten was unheard of, although there were a few packaged crack-

ers in 3-lb. containers something like shoe boxes.

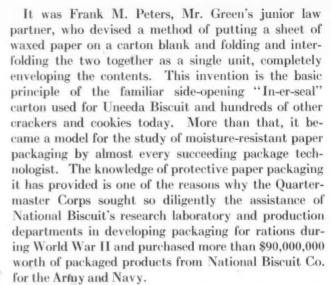
Mr. Green insisted that crackers should be packaged in small units to sell for 5 cents, that the packages should contain "no greater quantity than would practically always be consumed while in a palatable condition," and that they should be packed so that "no contamination from moisture, dust, germs, odors, human or animal contacts" could affect the product.



The search began—for a package and a name. Among those who came to Mr. Green was W. B. Howe of Howe & Davidson, Inc., a Chicago firm which was making a side-opening, tuckend folding carton for other products with a special wax treatment which Mr. Howe maintained was the ideal type "for use in all your factories."

Howe & Davidson's cartons were not the sole answer to Uneeda Biscuit's packaging needs, although National Biscuit eventually bought this carton firm, which was the predecessor of National Biscuit's own carton manufacturing division at Marseilles, Ill., where the bulk of Nabisco's cartons are made—now as then—from reclaimed waste paper from the city of Chicago.

No tuck-in carton, alone, would give the necessary moisture protection. To exclude air and water vapor, and to prevent absorption of shortening which hastens rancidity, the carton required an inner liner of waxed paper. But how could the waxed paper be put in economically and at the same time enclose the contents completely?



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Mr. Peters also devised a rapid method for forming the cartons and waxed liner by equipping an ordinary kitchen table with an arm and square block of wood, operated by a foot treadle. When the block was lowered onto the flat carton blank with the waxed sheet placed on top, it provided the form about which the operator could interfold the waxed paper and lock the carton end flaps so that the container was set up and ready for filling and closing.

Within a few years, Peters developed automatic forming equipment as well as automatic closing, wrapping and end-labelling machines. The Peters Machinery Co. of Chicago, a leading manufacturer of carton set-up and wrapping machinery, bears his name today and, of course, accounts for the familiar "Peters" carton used by the millions in the frozen food and other industries.

By 1903 Uneeda Biscuits were being packaged by virtually the same mechanical methods as are being used today. All Nabisco's crackers and cookies are stacked and their cartons shaped and sealed by machine, but all must be arranged in cartons by hand (except Ritz and a few others that can be dump-packed). Due to the fragility and flakiness of the products, no better method has been found. This is not only a trial to National Biscuit and all other baking companies who produce similar products, but a paradox in an industry which symbolizes modern packaging and has developed mechanical methods to an amazing degree. It is an outstanding challenge still unanswered by the packaging machinery industry. The dimensions of some products which might otherwise be dump-packed is also a handicap, in that this would require packages too large for convenient handling and economy. The best improvement that can be expected for the immediate future is a new carton former with speeds of 300 to 400 per minute compared with 60 per minute today.

First water-vapor tests

George E. W. de Clercq, now retired and living in Upper Montclair, N. J., was with National Biscuit in 1899 when the first order for the Uneeda Biscuit came



THIS BOY in slicker and sou'wester hat, symbolizing the resistance of the In-er-seal to moisture, has become one of most familiar trademarks.

into the Chicago bakery and recalls what was undoubtedly one of the first water-vapor transmission tests used in packaging.

"We took two pickle crocks," says Mr. de Clercq, "placed two porous bricks in each and put water in the bottom, but only enough so that the test packages could be placed on top of them without touching the water. In one jar we put sample packages in which we used a wax-impregnated paper; in the other, samples in which we used a wax-coated paper. We sealed the jars by putting paper tightly under the crockery lids. We left the samples 72 hrs. On examination, we found the crackers in the packages with the wax-impregnated paper to be so soggy they were unfit to eat. The others, enclosed in the package with the wax-coated paper, appeared to be unaffected by moisture and were in excellent, fresh condition."

Another problem the company had in the beginning was getting rid of the wax odor, the waxes then not being what they are today. Oftentimes the paraffin on the experimental papers had a trace of "kerosene smell." One trace of this in the early packages would have queered the whole venture.

Choosing a name

What bothered Mr. Green as much as the structure and materials of the package in the beginning was a name for the new soda cracker. Being a Bostonian and a classical scholar, his mind dwelt on such suggestions as "Bekos," the Greek word for bread; "Trim Biscuit," after Corporal Trim in "Tristram Shandy;" "Pherenice," a Greek word signifying thirst (pronounced in English, "very nice").

He sent these suggestions to Mr. McKinney at N. W. Ayer, who, like many an advertising man today, was faced with the ticklish problem of rejecting his client's ideas. With great diplomatic skill, Mr. McKinney wrote back in a letter dated Aug. 29, 1898, suggesting such names as "Taka Cracker," "Hava Cracker," "Usa Cracker," "Wanta Cracker," Takanoo Cracker," "Uneeda Cracker." Under the word "Uneeda" Mr. Green drew a line in red ink.

That was the way the name was chosen, but whether Mr. McKinney was its author is not determined by record. A history of the Robert Gair Co.[†] tells of an

† "Robert Gair, a Study," by H. Allen Smith, Dial Press, Inc., 1939.



EARLIEST SKETCH of Uneeda Biscuit package was enclosed in letter sent by company's first president to N. W. Ayer, dated Nov. 21, 1898.

incident that may have provided the inspiration to Mr. McKinney.

Young George Gair was in Chicago soliciting the business of supplying cartons, wrappers and labels for the new product and for some years thereafter sold large quantities of packaging supplies to National Biscuit. Mr. de Clercq, incidentally, later joined the Robert Gair Co.

At a meeting with National Biscuit Co. executives, Mr. Gair was asked for his suggestions.

"Well," he said, "you need a name."

"You needa!" cried one of the conferees, according to this story. "Uneeda biscuit!"

It seems logical the conferee who said that must have been Mr. McKinney, who incidentally has been credited with many other famous brand names such as "Karo," "Keds" and "Meadow Gold" for butter.

The name Uneeda survived in spite of doubts in Mr. Green's mind right up to the time of printing the first wrappers. It was he, too, who insisted on the use of the word "biscuit," in the belief that it signified a higher grade of product than "cracker," although Uneeda Biscuit is and always has been a soda cracker made

EVOLUTION OF A TRADEMARK. A fifteenth century printer's mark, signifying the triumph of the spiritual over the evil and material, became first symbol for the In-er-seal. Later it was adapted to N.B.C. and today carries Nabisco.



1481



1900



1918



1941

square with the corners clipped off. The name Uneeda Biscuit also had an important virtue which Mr. Mc-Kinney insisted on for every brand name—a name which contained all ascending letters; that is, letters entirely above the line, rather than with descenders such as "y" or "p."

Designing the package

In 1898, package designers were unheard of. The Uneeda Biscuit label design and the Nabisco end-seal trademark—which have remained basically unchanged for 50 years—were worked out by Mr. Green himself. The border design on the package wrapper was borrowed from the hand-tooled binding of a 16th Century Grolier volume in his own library. (The same design is now reproduced on the ceiling of the National Biscuit Co. board room.) He decided on the purple background and chose the type style for the name-strong, simple upper and lower case sans serif letters, in contrast to the fancier lettering with serifs in vogue during the '90s and as modern in feeling today as when it was chosen. Mr. Green specified that the name, Uneeda Biscuit, be printed in purple on the white subpanels of each side of the package.

Few package designs can stand up for 50 years without a basic change, due to changing styles and tastes in typography. It is interesting to speculate on how much the continuous "rightness" of Mr. Green's 1898 design contributed to Uneeda Biscuit's success.

The over-all National Biscuit Co. trademark, which

INFRINGEMENT began almost immediately. Some 900 imitations of biscuit trade names and packages by nearly 300 competitors have been enjoined or abandoned under notice of suit.



was originated for use on Uneeda Biscuit packages, has been one of the most carefully guarded in all American business.

The colophon trademark

For the Uneeda Biscuit end seals, Mr. Green originally suggested a reproduction of the cracker, true as to shape and coloring and of a size as large as the dimensions of the end of the carton made possible. These were originally used. (See illustration of first package in glass case.) Later there evolved a red end seal, die cut in the shape of the cracker, but bearing a symbol which National Biscuit has guarded zealously ever since as a company trademark. This symbol is a double-barred cross above an oval in which appeared originally the word, "In-er-seal," signifying the inner protection of the waxed paper lining of the carton and spelled in such manner as to adapt it for use as a trademark. The symbol of the cross and oval was copied from a medieval Italian printer's symbol, known as a colophon, which stands for the triumph of the moral and spiritual over the evil and the material.

In 1918, this seal was registered with the letters N.B.C. in place of the original word In-er-seal, in the belief this would identify it more closely with all of the company's numerous products as a symbol for National Biscuit Co. In 1941 the trademark was again revised and registered in its present form with the name Nabisco in the oval, a word that has definite individuality as a trademark of the company.

It is interesting, however, that today, in line with more descriptive, pictorial visualization on packages, the company in 1946 put a color reproduction of the cracker on all side panels of the package—preserving Adolphus Green's original idea.

Earliest sketch of the package in the company's possession (see illustration) was included with a letter from Mr. Green to N. W. Ayer & Son dated Nov. 21, 1898. This representation of the package was planned for the label on 3-dozen-package shipping units. The letter was marked personal with the admonition: "We prefer to have the inclosed package label seen by as few people as possible. We are somewhat in fear that some of our competitors may get out a similar package before ours is on the market."

And lucky it was for National Biscuit that its first lawyer-president and his successors—first Mr. Tomlinson and, since 1945, George Coppers, both lawyers—have taken the same precautions. National Biscuit relies heavily on its trademarked brands.

No sooner was Uneeda Biscuit launched than National Biscuit was forced into court to protect it from Uwanta Biscuit, Iwanta Biscuit, Ulika Bis-Kit and others. Attempts to imitate the Grolier border and the colophon symbol on the trademarked seal have been made again and again. So widely have National Biscuit trademarks been imitated that litigation fills several bound volumes. Earl D. Babst, chairman of the board of American Sugar Refining Co. and formerly of Green, Peters & Babst, Chicago (Continued on page 172)





END CONSTRUCTION provides a scoop for quick filling by manual methods. Equipment for automatic filling is now being designed.

LARGE WINDOW, giving ample view of product quality, is feature of bright red, yellow and white carton, which has lock-slot ends. This is believed to be the first rigid container used to package fresh cranberries.

Cartons for cranberries

FOLDING WINDOW BOX, GIVING RIGID PROTECTION TO THE PRODUCT,

MEETS ENTHUSIASTIC RESPONSE IN FIRST TEST BY EATMOR

Rigid packaging for fresh cranberries—a product heretofore confined to cellophane bags—has been introduced by the Wisconsin Cranberry Sales Co., an affiliate of the American Cranberry Exchange.

Made of wax-coated solid bleached board with a window of transparent acetate which allows proper conditioning of the product, the new folding carton holds 1 lb. of berries—just the right amount for a 9-in. pie.

Sensing the need for a rigid container for fresh cranberries, the container manufacturer approached the cranberry industry with the idea and at first met with little enthusiam. Industry officials pointed out that rigid packaging had been attempted some eight or 10 years ago without success. However, it was pointed out that consumers today lean much more toward packaged foods than they did 10 years ago and the Wisconsin Cranberry Sales Co. became sufficiently interested to undertake the project. The result was the colorful Eatmor cranberry carton with its eye-catching red and yellow design.

Because the purpose of using the carton for last season's sales was merely to test its functional value and market acceptance, no attempt was made to adapt machinery for the operation. All cartons were filled by hand at plants in Wisconsin Rapids, in the heart of the cranberry marsh area of Wisconsin.

An unusual feature of the box is a special scooping

end which allows quick filling via the manual method, but folds compactly when the package is closed. Steps are now being taken to design equipment which will enable cranberry packers to fill the boxes automatically. With a few changes, existing machinery for automatic filling of bags can be used for the boxes, it is expected.

Some of the advantages of the new carton which were disclosed through its use last season are:

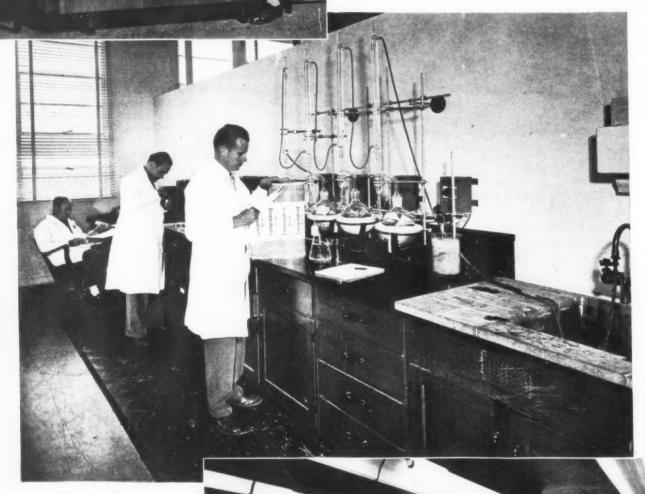
- 1. It reduces breakage.
- 2. Rigidity allows maximum efficiency in both automatic and hand-filling operations.
 - 3. Special scooping end speeds manual filling.
- 4. Rigidity and shape are well adapted for storing in refrigerator. Box can be reclosed and returned to refrigerator after part of the cranberries are removed.
- 5. Panels provide ample space to tell sales story, display brand name, give recipes, etc.
 - 6. It gives adequate visibility to product.

Distributors receiving the new Eatmor cranberry boxes found the initial lot selling so easily last season that they were eager to re-order, according to the company. They wrote that the box was meeting with a very fine reception, that their salesmen liked it and that it made a neat display and maintained its shape.

CREDITS: Carton, Marathon Corp., Menasha, Wis., using acetale window film, "Lumarith," by Celanese Corp. of America, New York.

PACKAGING LAB

LABORATORY MANAGER talks over a problem with his technical staff. Offices are spacious, well decorated and equipped, and all surroundings are made conducive to sound scientific work.



PRELIMINARY TESTS prior to final package testing are made in one of the three large laboratory rooms, equipped with all manner of both chemical and mechanical testing apparatus.

SEAL STRENGTH is determined by C. S. Funk, divisional technical supervisor, on new recording seal-strength tester.

-HOW and WHY

NEW LABORATORY PROVIDES A STUDY

IN THE RESEARCH AND DEVELOPMENT FUNCTION. By George F. Chase*

decision to engage in the construction, equipping and support of a laboratory devoted to the study of packaging presupposes a recognition of packaging problems which are not being answered currently and which are sufficient in number, location and importance to justify the necessary expenditure. Such laboratories may be privately supported by the package supplier utilizing either flexible or rigid packaging materials (e.g., paper, films, wood, glass, metals or plastics), or the package user, such as the processor of foods or the manufacturer of fabricated items. In an intermediate class are the commercial testing (or "referee") laboratories, operating on a fee or retainer basis, and those supported by trade associations. There are also publicly supported laboratories, such as Government military (e.g., ordnance and quartermaster subsistance) or non-military (e.g., Forest Products), and educational or research institutions. The features to be included in a packaging laboratory very obviously depend on the interest of the supporting group and the nature of the packaging problems to be solved.

Exemplifying the first-named type, the Western Waxed Paper Co., a division of Crown Zellerbach Corp., has recently completed and placed in operation a new packaging laboratory located near the shores of the San Francisco Bay in a new industrial section of San Leandro, Calif. Geographically, this is believed to be the first laboratory west of the Mississippi River devoted exclusively to studies of flexible packaging materials and methods. It is our thought that many of its features will be of interest to the personnel of other packaging laboratories and that a description may serve as a "check list" even though all features are not universally applicable.

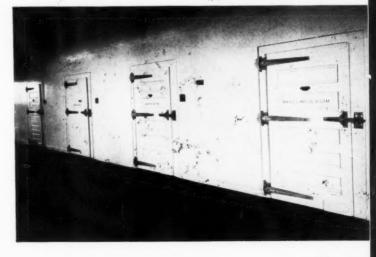
Western Waxed Paper Co.'s laboratory is set up both to assist the daily manufacturing requirements of the company and as a packaging research and development aid to the very extensive West Coast production centers of fruits, vegetables, processed and sea foods and the many industrial and military items produced or packaged in the area. An important factor affecting the decision to locate in the Bay area was that a major portion of such materials are shipped from this harbor to other ports in the United States and to foreign countries, as well as by rail to Eastern points.

Considered first as a manufacturing aid, the laboratory offers technical and production services to the end that quality control may be assured and the most advanced manufacturing techniques adopted. In cooperation with technical supervisors in the company's converting plants in the Portland, Oakland and Los Angeles areas, the laboratory collaborates with superintendents in developing manufacturing specifications. It investigates materials received and shipped, together with alternate and substitute materials offered by representatives of various vendors. These activities are called "Functional Services" and "Contributing Materials," respectively. Monthly progress reports and work schedules are provided, together with both a digest and detailed report of each investigation.

The equipment required consists of recognized testing apparatus (such as tear, tensile, Mullen, stiffness and similar measuring devices) located in a standard TAPPI room maintained at 73 deg. F., 50% relative humidity. For development work, test instruments may be transferred to other conditioned rooms. Provision is made for pilot-scale equipment, duplicating the various manufacturing operations. As a manufacturing aid, the San Leandro laboratory is more extensively equipped than test stations located in the converting plants.

In addition to the investigation of new manufacturing materials and methods, the packaging laboratory serves as a centralized department to investigate the many new items that are proposed to paper converters for manu-

> DOUBLE-DOORED climatic rooms are made large enough to be used for storage or testing experiments under precisely controlled prairie, arctic, tropical, desert and variable conditions.

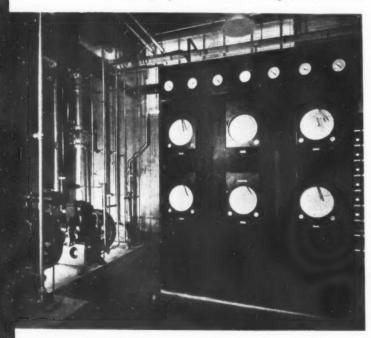


^{*} Manager, Packaging Research & Development Department, Western Waxed Paper Co., San Leandro, Calif.



PACKAGES ON TRIAL in one of the climatic rooms. By means of elaborate air-conditioning and humidity-control system, actual climatic conditions anywhere can be duplicated here.

INSTRUMENT PANEL automatically recording temperatures and humidities in test rooms and controlling operation of the compressors at left.



facturing. The less worthy must be screened out and those which appear worth while passed on for investigation. To accomplish this objective "commercial research" is, in this instance, made a laboratory function inasmuch as more than market research is involved. Market research activities are customarily a function of sales or advertising departments and if otherwise available would not be duplicated within the laboratory. However, the term "commercial research" also includes intra-organizational studies with respect to sales, manufacturing, credit, art, patent status, cost estimate and material availability. "Comparison shopping" may be indulged in, should the proposed new product be already on the market in another form. In the writer's experience, about 75 to 90% of new product ideas come from the commercial research division rather than from other company activities.

If the new idea is approved by Commerical Research, it is then assigned to the laboratory staff under the title of "applied research." Following information developed by Commerical Research, the laboratory personnel supervises experimental runs, new package formation, formulation and testing, and comparison testing with current packages. The final results are functional recommendations capable of field application. Should fundamental research be required, the San Leandro laboratory contacts the Crown Zellerbach Central Research & Technical Department, located at Camas, Wash., or qualified consultants in the industry involved. Use is made of information available from package users or Government and educational institutions, as it may apply to the problem under investigation.

Having considered the worth-whileness of an idea and having worked out the solution and the manufacturing technique, it then becomes necessary to take the final step towards a flow of materials through the manufacturing plant and over the shipping platform at a profit. This involves cooperation with the sales departments, supplying technical information on new products and providing supporting data required to initiate sales. A check of customer acceptance is kept, particularly on initial shipments. This may be denoted as sales promotion, in a limited sense. Semi-monthly progress reports on packaging developments, slanted primarily towards the sales department, are sent out by the San Leandro laboratory, in addition to project reports on completion of the tests.

The above generalizations are illustrated by the accompanying photographs showing the facilities provided in the new Packaging Research & Development Laboratory of the Western Waxed Paper Co. The laboratory building is segregated from both the manufacturing and sales divisions. It is planned to be attractive to visitors and is so laid out that it may be expanded to accommodate additions to both equipment and personnel. The building is of customary West Coast frame and stucco construction, located on a concrete slab, with an extra protective slab underneath the conditioned rooms. This latter portion of the foundation rests on 4 in. of coarse gravel, as a protection

against attraction of water to the refrigerated portion of the rooms.

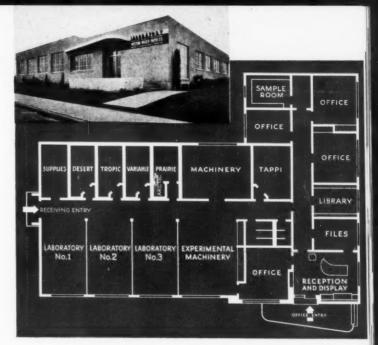
Walk-in rooms were selected to facilitate measurements under actual test conditions, eliminating the errors that may occur in cabinet determinations. Four of these rooms are maintaned at temperatures of minus 20 deg., zero deg., 35 to 50 deg., and 80 to 90 deg. F. There are also desert and tropic rooms, with a range of 90 to 110 deg. F. and relative humidities of 20 and 90%, respectively. In addition, there is a standard TAPPI room operating at 73 deg. F., 50% R.H. Humidity in the TAPPI room is controlled by saturating the circulated air below room temperature and raising to 73 deg. F., which results in the 50% relative humidity required. In the desert room, operating at 90 to 100 deg. F., dehumidification is provided directly in the room (with the condensate trapped in a pan under a layer of oil to prevent rehumidification). In the tropic room, operating at high relative humidity (near the condensation point), moldproofing of the interior has been provided. Humidity is recorded and controlled in all but the arctic room (minus 20 deg.).

With accompanying standardized handling tests, these rooms are set up to provide storage under conditions normally encountered by the West Coast packager from source to destination. You will note that within a distance of 50 ft. it is possible to simulate conditions encountered by packages in a surface or airborne trip from the equator to the north pole. Storage tests may be made under constant conditions or in cycles, as desired. Handling tests are usually foot-pound drop tests on either flat surfaces or corners. In our experience actual shipping tests (to a given point and return) sometimes receive undesirable preferential handling and such test conditions may not be controlled or reproducible.

Auxiliary equipment in the new laboratory includes a number of ovens; moisture, water-vapor transmission and humidity-determination apparatus; pilot-coating and laminating equipment (partially installed currently) and customary laboratory-analytical apparatus. Studies of water-vapor transmission rates and sealing strengths may be made in any of the test rooms, as well as any of the more common physical tests such as tear, tensile, etc.

Water-vapor transmission rates are reported by the length of time required to obtain a given amount of transmission through a given area. Conversion to other recognized standards is made by conversion tables. Seal-strength measurements are made on a unique tester, results being expressed as strength in centigram per inch of length at a stated temperature. From a functional point of view, the protective value of a package is usually determined by the selection of packaging material, strength of seal and mechanical perfection of seal. All these can be evaluated in the facilities provided.

Offices are equipped with the latest in calculating, dictating, typing and reproduction equipment. As will be noted in the accompanying photographs, some lobby



FLOOR PLAN and exterior view (insert, upper left) of the modernly designed laboratory. It is of one-story frame and stucco construction, with special concrete slab under-construction.



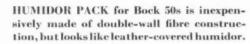
RECEPTION ROOM showing floodlighted wall display of packages developed and tested in lab.

space is devoted to a display of interesting packaging developments.

The San Leandro laboratory is prepared to make handling and storage tests for customers and prospective customers, predicting package life and determining the economic factors in various package materials. No restrictions are set up regarding the packaging materials studied. The results obtained are available to the package suppliers only. Legitimate inquiries as to any of the operations of this packaging laboratory, as well as results obtained, are welcomed.

CREDITS: Design of laboratory, The Austin Co., Oakland, Calif. General construction, Christensen & Lyons, Oakland. Conditioned rooms, Drew Engineering Co., Portland, Ore.







COMPONENTS of Bock package. The fibreboard can is lined with aluminum foil for protection and cedar veneer, for aroma, surrounds the cigars. The gold-lacquered metal cover has a built-in clay humidifier.

Progress in cigars

TWO MAKERS TACKLE THE PROBLEM OF IMPROVING PACKAGING

WHILE RETAINING THE TRADITIONAL 'LOOK' THAT SMOKERS DEMAND

Packaging in the cigar industry is hidebound by tradition—and for a not inconsiderable reason. Experience has shown that cigar smokers generally will resist any package that departs too far from tradition. Yet the cigar maker obviously is impelled to take advantage of the improved protection and lower costs afforded by modern materials and methods.

Two interesting approaches to this problem, from quite different angles, are currently on cigar counters.

In one case, a box of 50 expensive cigars is in a metaltopped, humidifying canister which, while primarily of fibre, resembles the leather-covered humidor traditionally associated with fine cigars.

In the other case, the emphasis—for a low-priced cigar—is on cost cutting, although not at the expense of protection. Here a folding box—believed to be the first of its kind—has been cleverly devised to imitate the conventional nailed wood box and to assure protection by overwrapping the box in Pliofilm.

For their best grade of coronas, H. Anton Bock & Co., Inc., New York, have adopted a double-walled, spiral-wound fibre canister lined with aluminum foil for

moisture retention and with cedar veneer for aroma. The canister has a crimped-on metal base and a metal rim at the top, and the close-fitting metal slip-on cover has a built-in humidifying clay disk. With these extra features, the Bock canister still retains its appearance as an "acceptable" cigar package. A steady flow of re-orders from dealers since the initial presentation of the package some four months ago indicates its acceptance by cigar smokers. Each humidor holds 50 cellophane-wrapped cigars and retails for \$10. The aluminum-foil liner is laminated to paper and this, in turn, is glued to the chipboard used in forming the inner can wall. Inner and outer walls are wound separately and an outer leatherette cover paper is glued to the outside wall before the metal bottom and lid lip are crimped on. Labeling is confined to a small, glued paper label tastefully designed in white, black and gold.

The idea of using a foil-lined can for the cigar package can be traced to a similar can which was sold as a pipe-tobacco canister. The combination of foil and the double paper walls—the dead air space acting as an additional insulating agent—provided ideal protection.

The humidifier is a clay disk $1^3/4$ in. in diameter which is inserted in the center of the lid beneath the knob handle. Instructions printed on a small paper sticker pasted to the inside of the lid tell the disk's purpose: "For perfect humidity, add cold water slowly with spoon or dropper until moistener is saturated." Depending on atmospheric conditions, the clay will give off its moisture slowly for seven to 10 days.

As any cigar smoker knows, a large part of the appeal of a cigar is its aroma. Cedar has been used traditionally to preserve the natural fragrance of tobacco. The Bock humidor has a thin sheath of Spanish cedar placed loosely around the inside wall, with thin disks of the wood placed on the bottom and over the cigars.

Both the metal lid and bottom are finished in gold lacquer, picking up the gold tint of the label and adding to the quality appearance of the whole package. Filled humidors are pre-packed in corrugated shippers.

With all its re-use features, the Bock humidor is said to compare favorably with wood cigar boxes in cost and weight. The canister weighs 9 oz. empty and costs approximately 60 cents complete with liner and label; natural cedar boxes (dovetailed) cost about 35 cents.

Maintaining the traditional cigar-box appearance at lower cost, the National Cigar Co., Frankfort, Ind., last month adopted a folding carton with a Pliofilm overwrap for its Lincoln Highway brand of 10-cent cigars. The carton was developed especially for the company, keeping in mind that customers at cigar counters usually purchase 10-cent cigars two or three at a time, so that the primary function of the box is actually one of protecting and displaying the cigars during the distribution phase. Of the same size and shape as a conventional wood 50-cigar box, the folding carton is made of 0.040 paperboard which has been given a brilliant white finish. The cartons are printed in red, blue and gold, carrying out the same design which National has used on its former Lincoln Highway cigar box.

Important considerations in deciding to use the carton were its lower handling and shipping costs, according to Carl Berger, president of the company. It was subjected to numerous tests—shipping, packing and filling—before its final adoption.

Although the carton's weight is approximately half that of a conventional cigar box, it is constructed to withstand pressure up to 300 lbs. empty, it is reported. The paperboard provides a resilient quality which absorbs shocks easily. Naturally it does not warp out of shape, splinter, split or crack. Even if slightly distorted under handling shock or pressure, it is said to return to true dimensions when pressure is removed.

The cartons are shipped to National as flat blanks—greatly reducing shipping and storage space—and are set up on specially built forming machines at the rate of one a second. It is reported that closing and sealing time is cut in half through the elimination of hand nailing operations. The carton lid is held closed by means of one or two strips of transparent pressure-sensitive tape and the tax stamp.

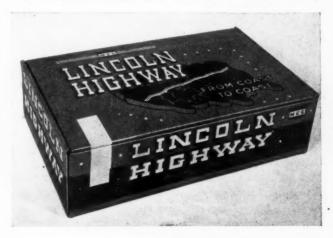
Although the cigars are individually protected by

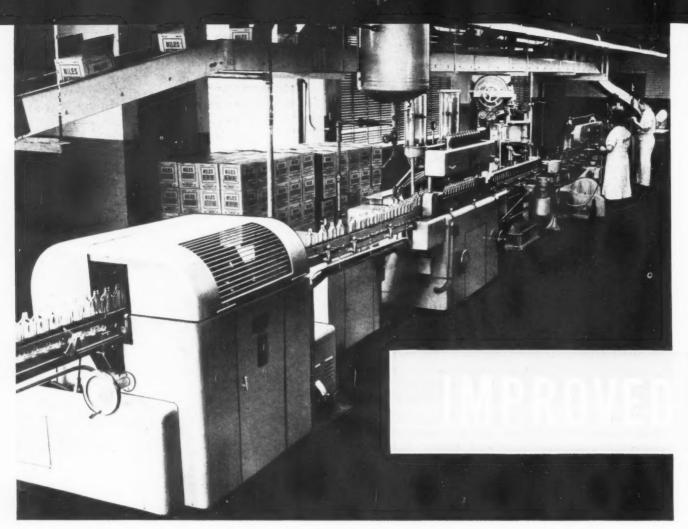
cellophane, National Cigar wisely decided to use a part of its saving on the box to provide a heat-sealed overwrap of Pliofilm for the box itself, as final assurance that the cigars would not dry out during storage. The wrap is, of course, discarded when the box is opened. Previously Pliofilm has been used for individual cigar wrappers, but this is believed to be the first time that it has covered the box. Gold lined corrugated boxes, printed in the same shades of red and blue as the individual cartons, have been adopted as shipping containers for the new Lincoln Highway cigars.

CREDITS: Bock humidor—Fibre can, Packard Container Corp., West New York, N. J. Cover paper, Kupfer Bros. Co., New York. Humidifier, Aztec Clay Moistener Co., Inc., New York. Label, Schlegel Lithographing Corp., New York. National Cigar package—Carton and shipping container, Ohio Boxboard Co., Rittman, Ohio. Set-up machine, Frank D. Palmer, Inc., Chicago. Pliofilm, Goodyear Tire & Rubber Co., Akron, Ohio.



LOOK CLOSELY and you'll discover that the new Lincoln Highway package is not a wood or fibre box, but a folding carton—believed to be the first thus used in cigar industry. Box is closed by strip of tape, plus tax stamp. Economically shipped and stored as flat blank, box is automatically set up on special machine and rapidly closed and sealed by elimination of hand nailing.





1. AUTOMATIC LINE at Miles Laboratories, showing (left to right) the bottle cleaner, power unit, bottle filler-capper and labeler. Cleaner, filler and labeler are automatically lubricated by one-shot systems.

As today's packaging machinery is principally highspeed, precision equipment designed for mass production at minimum cost, it is only consistent that it should, in so far as practicable, be provided with central automatic, or semi-automatic, lubrication. This is a trend to which packaging executives can profitably pay more attention. High-speed machinery obviously requires adequate lubrication if costly breakdowns are to be avoided. The mechanical methods largely, or entirely, eliminate the human equation; the attendants do not have to think about anything but the packaging operations and production schedules are not endangered by mechanical troubles resulting from inadequate lubrication.

An example is the packaging line at Miles Laboratories, Inc., in Elkhart, Ind., shown in Fig. 1. It consists of (left to right) a bottle cleaner, bottle filler, capper and labeler connected by sections of power conveyor. The cleaner, filler and labeler are specially equipped with semi-automatic lubricating systems; the one-shot lubricator on the bottle filler oils 26 bearings and that on the labeler, 22 bearings. The rest of the equipment is too simple to call for such systems.

These lubricating systems consist of but three elements. They are simple to install and easy to maintain. The savings made possible far offset the initial cost. The system consists of a lubricator, or oil reservoir and pump, an arrangement of small diameter tubing from the lubricator to each point to be oiled, and a meter unit at each point of lubrication. When the lubricator pump is actuated, a measured amount of filtered oil is discharged through the tubing to the meter units at the bearings, each bearing receiving the specific amount which it needs.

Different types of lubricator are available to meet specific conditions. They are designed for high or low pressures and in some types the pump is driven from the machine to provide for fully automatic oiling. In other types the pump is manually operated by means of a lever or handle at stated intervals. The latter is frequently referred to as a one-shot, or semi-automatic, lubricator and is the type used on the packaging machines at the Miles Laboratories. It is shown close up in Fig. 2.

It has a push-back lever, the reservoir capacity is one pint, the average discharge pressure is 60 lbs. per sq. in. and the discharge of oil per shot may be adjusted for any amount between 4 and 16 cc., depending on the size, load and number of bearings to be served.

The meter unit consists of three elements—a felt

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be un st di filter, a metering orifice and a check valve, as shown in Fig. 3. The felt filter is for the protection of the bearing against foreign material which may be in the tubing at time of assembly. The metering orifice controls the quantity of oil delivered to the bearing when the lubricator pump is actuated. The capacity of the metering orifice installed at a given bearing depends on the amount of oil required by that bearing. Different bearings may need different amounts of oil, so meter units with the correct orifices must be selected and installed with due care. Obviously the amount of the discharge from the lubricator each time its pump is operated must equal the sum of the quantities required by the bearings.

Each meter unit is also provided with a check valve

UBRICATION

MECHANICAL SYSTEMS CAN ELIMINATE

THE HUMAN ELEMENT AND PROVIDE

INSURANCE FOR THE HIGHER SPEED

OPERATION. By Francis A. Westbrook, M.E.

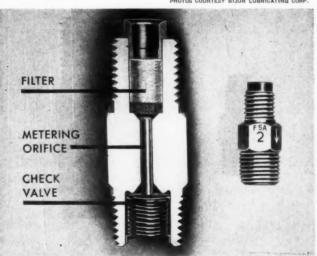
which permits oil to flow to the bearing, but not out of it. Meter units are installed right at the bearings whenever possible; under certain conditions they may be located at a junction nearest the bearing with a tail tube leading to the point to be lubricated. Lubricators may be located wherever convenient, keeping in mind that they must be readily accessible for filling the reservoir.

With such a system the machines may be completely oiled while in operation without accident hazards, no matter how remote and inaccessible any of the bearings may be. There is no danger of any bearing being overlooked, as sometimes happens with manual oiling. As just the right amount of lubricant is measured out for each bearing, there is practically no waste, no drip and consequently no soiling of products.

Fig. 7 shows a close-coupled combination of rotary bottle cleaner, filler and four-head capper in operation at the Seagram Distillers plant in Louisville. Fig. 8 shows a sectional view of the cleaner unit of this combination with the one-shot, lever-operated Bijur lubricator mounted on the side and the tubing leading from it to the various bearings. The lever is operated by the attendant at certain specified times, such as when starting up in the morning, after the noon hour and at such other intervals as are recommended by the machine builder and as the experience of the user has indicated may be necessary.

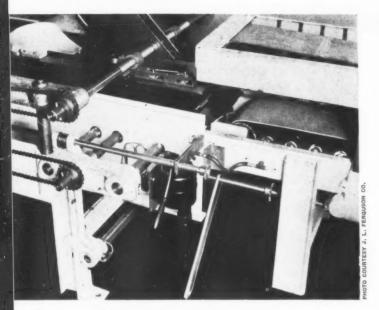
Also shown within the cleaner unit is a small-capacity lubricator which oils a group of bearings requiring smaller quantities of oil at different time intervals than those served by the regular one-shot system. This



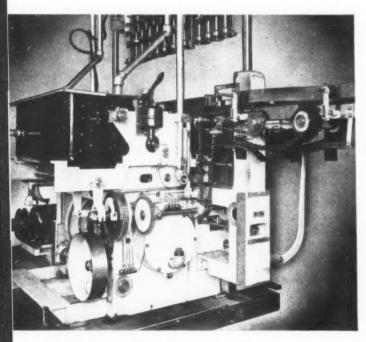


3. METER UNIT controls oil flow at the bearing. Oil is forced through filter and metering orifice; check valve keeps supply tubing full at all times. Arrow on meter unit indicates direction of flow; number indicates flow rate.

2. ONE-SHOT LUBRICATORS of various types used on packaging machines. The push-back-handle type at top is used at Miles Laboratories.



4. TOTALLY ENCLOSED and streamlined when in operation, this case-sealing machine has 35 bearings which are oiled by the one-shot lubrication system shown in the center foreground.



5. DISTRIBUTION SYSTEM, branched at junction bars to deliver oil to all the bearings, is shown in this view of an automatic vacuum filling machine used by the Sweets Co. of America.

6. TWIN SYSTEMS lubricate this high-speed carton feeder and bottom sealer at the Harold II. Clapp Co., Rochester, N. Y. Unit (shown with housing removed) has a one-shot lubricator at the top of the machine and an automatic machine-driven lubricator in the lower left corner.

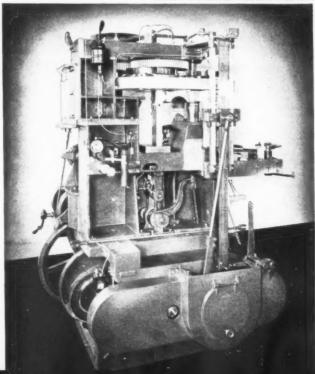
lubricator is a pull-button unit with a built-in oil level window in the reservoir. It is shown in Fig. 9, installed on Pneumatic Scale's rotary top-closing machine where it supplies oil to 10 rolls on a spider which rotates the main vertical shaft of the machine.

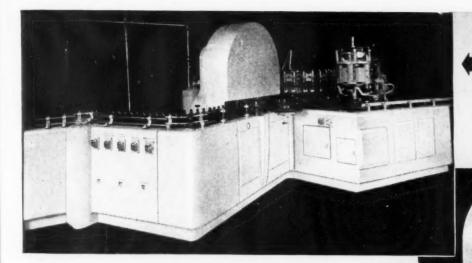
The latest model of the Packomatic case-sealing machine, which is totally enclosed and streamlined, has 35 bearings which are oiled by a one-shot lubricator, shown in Fig. 4. The lubricator is located within easy reach through a door for operating and refilling. It has a push-down handle, the reservoir has a capacity of two pints and the discharge per shot is adjustable for any requirements between 4 and 32 cc. The average discharge pressure is 60 lbs. per sq. in. It will be seen that this type of one-shot lubricator has a larger reservoir with greater discharge per shot capacity than those used on the bottle cleaner, filler and labeler shown in Fig. 1. This is of course necessary because of the greater number of bearings which are served by the single lubricator on the case-sealing machine.

Other applications of one-shot lubricating systems are found in the automatic filling machine, shown in Fig. 5, and the high-speed carton feeder and bottom sealer, shown in Fig. 6. The vacuum filling machine used by the Sweets Co. of America shows to advantage the single-line distribution system which is branched at junction bars to deliver oil to all bearings. The machine shown in Fig. 6 is another illustration of two lubricators working independently of each other to oil bearings with different feed requirements. In this case, however, the small-capacity lubricator in the lower left-hand corner of the machine is a machine-driven unit which automatically force-feeds oil to its group of bearings at predetermined intervals.

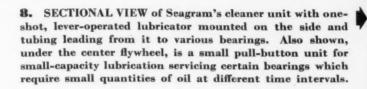
A large double package maker equipped for automatic oiling, now in operation at the Quaker Oats plant in Akron, Ohio, is shown in Fig. 10. The cyclic type

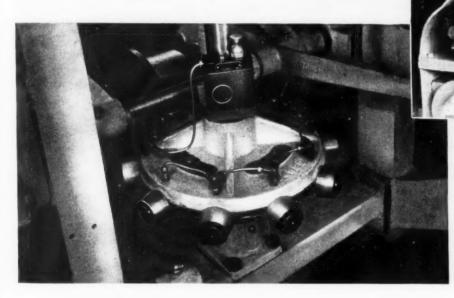






7. CLOSE-COUPLED rotary cleaner, filler and four-head capper in operation at the Seagram Distillers plant in Louisville, Ky. All are automatically lubricated by central systems.





9. PULL-BUTTON UNIT is shown close up on Seagram's rotary closure machine. It supplies oil to 10 rolls on a spider that rotates main vertical shaft.

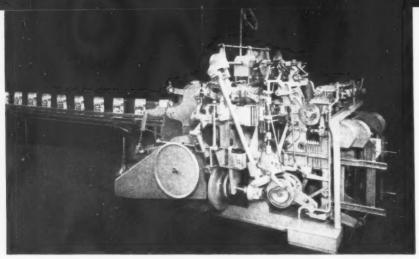
Bijur lubricator employed for this large machine may be seen in the lower center just above a drive shaft. It is driven from this shaft by an enclosed chain drive and operates at an average pressure of 50 lbs. per sq. in.

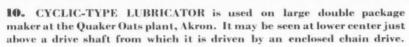
The one-shot lubricator is satisfactory where the number of bearings is comparatively small, but where the number is large and the amount of oil to be discharged into the system correspondingly large, it is desirable to use the fully automatic, mechanically driven lubricator. It is adjustable for operation at stated intervals, or after a given number of cycles in the functioning of the machine. The cyclic lubricator itself is shown in Fig. 11.

In Fig. 12 is an installation of a Crown Cork & Seal syruper-filler-crowner as used in the bottling plant of a number of well known beverage concerns. The par-

ticularly interesting point regarding the lubrication of this machinery is that some parts of it need periodic oiling, other parts continuous oiling and still others jet oiling. One Bijur high-pressure lubricator has been adapted to serve all three purposes. The lubricator reservoir holds six pints. Cyclic lubrication, or lubrication at regular intervals corresponding to a specified number of cycles of the machine, is provided for those bearings requiring it by the pump which discharges up to 12 cc. per shot. The intervals range from 9 to 30 min., depending on the speed at which the machine is operated, and the pressure varies from 40 to 270 lbs. per sq. in., according to speed and temperature.

The cylinder pull-down cam, filler gear and filler drive gear receive a continuous oil feed at the very slow rate of 50 cc. per hr. for all of them. This comes from







H. FULLY AUTOMATIC, mechanically driven lubricators, adjustable for cyclic or interval operation, are shown here close up.

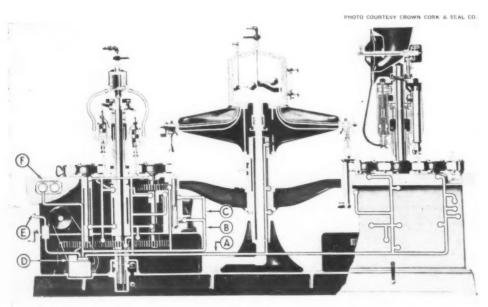
the lubricator in which a constant pressure is maintained of from 11 to 20 lbs. per sq. in., depending on the viscosity of the oil. In addition to this, a manually controlled jet flow of oil to certain bearings is provided by operating a foot pedal in front of the machine. Operation of this pedal directs a flow of oil from the lubricator to all lift cylinders and guide rails.

There is another feature to the oiling system here which provides for the flushing of all bearings with oil before starting in the morning by stepping on another foot pedal. This is particularly desirable because the machine is washed every night and much, if not most, of the oil is thus removed from the bearings. By this means, all parts of the machine are well oiled as soon as the machine is started, and starting wear and tear is practically climinated. Production can begin at once and down time for repairs is reduced to a minimum. This application shows to good advantage the versatility of such a lubricating system.

It is interesting to note that the lubricator for this

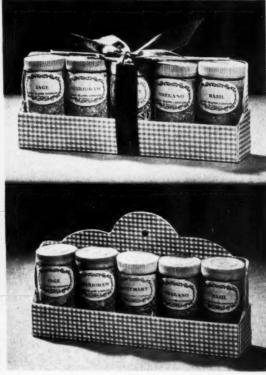
job has been designed so that when the oil level in the reservoir falls to a point where filling is necessary a red signal light illuminates the face of the oil pressure gauge. In addition to this the machine stops automatically if the reservoir is not filled before the oil supply gets dangerously low.

Other packaging machinery has of course been designed for use with automatic or semi-automatic lubrication, but enough applications have been considered here to show the general principles involved. Many of the machines are more or less specialized to suit the particular packages and other conditions of the individual users. Consequently, although some items of packaging equipment may be pretty well standardized, a great deal of it cannot be at all fully standardized. A blueprint for applying mechanical lubrication to all machines under all conditions is not possible. However, the units composing such lubricating systems are sufficiently versatile to permit of their application in a great many situations.



12. DIAGRAMMATIC view of lubricating system of syruper-filler-crowner used in bottling plants. Some parts need periodic oiling, some continuous and others jet oiling; one high-pressure lubricator serves all three purposes. A, cyclic flow line; B, continuous flow line; C, jet flow line; D, high-pressure lubricator; E, oil filler plug; F, oil pressure gauge.





UNUSUAL VINEGARS are given unusual display by packaging four custom-mold bottles in open trays, top and bottom, tied together with colorful ribbon. Five herbs are sold in a tray with fold-down header that turns it into a kitchen-wall shelf. Both of these packages are of economical folding construction.

Condiments in gingham and bows

SPICE ISLANDS IS BOOSTING THE SALE OF UNUSUAL FLAVORINGS

BY PACKAGING SETS WITH FEMININE APPEAL

Through redesigned packaging aimed at related selling, the Spice Islands Co., San Francisco, has raised sales volume of two exotic spice and herb assortments until they rival in demand the commoner kinds of condiments.

The company's two new packages—one for dried herbs and one for spice-flavored wine vinegars—are designed for feminine appeal, since it has been found that almost all such products are purchased by women. The Vinegar Sampler was created to fill buyers' demands for a gift package. The Spice Sampler, with its tack-up-shelf feature, has induced housewives to try spices and herbs heretofore not in mass demand.

After a review of Spice Islands' sales and distribution, it was decided that three things should be done in redesigning the packages: (1) the conventional types of containers should be abandoned in favor of more feminine-looking packages, (2) low-volume items should be pushed by packaging in related groups and (3) folding cartons should be adopted as a space-saving measure.

The clear, sparkling vinegars are shown off to adantage by tall, gracefully shaped bottles molded with swirled bases and shoulders. Narrow labels around the plain center section emphasize bottle height. The four-bottle vinegar assortment is held, above and below, in paperboard trays printed in a gingham pattern. The bottles are held rigid between the top and bottom trays by concealed inserts and by colorful ribbons tied in a gay bow at the top. Each assortment is packed in a fibreboard container and 12 containers go in a shipping carton. According to the company, not a single bottle has been reported broken in shipment.

For the dried herbs multiple-unit package, an openface carton was designed with a die-cut, scalloped top that folds over the tops of the glass jars. When the top is raised, the carton becomes a miniature shelf that can be tacked to a wall. Printed in the same gingham pattern and bow-tied like the Vinegar Sampler, the Spice Sampler holds five different kinds of herbs, each in a wide-mouth jar with a dainty, molded plastic cap.

Spice Island officials report that the two assortments have been the most successful gift items the company has ever produced.

CREDITS: Cartons and trays designed and produced by Fleishhacker Paper Box Co., San Francisco. Bottles, Owens-Illinois Glass Co., Toledo, Ohio.

PICKLES

In this liquid-right Pliofilm pockage, pickles, clives, soverkraut, oysters and similar juice-laden foods are wrapped in their natural brines, with complete protection against leakage or flavor loss.

ORANGES

This strong, durable Pliofilm bag is a dependable quality safeguard for self-service sales, for oranges, apples, potatoes, other truits and vegetables.

Eight problems - ONE answer

in Moistureproof

Packaging

FRESH VEGETABLES

in Pilofilm, celery, lettuce, carrots, corn, spinach, all manner of fresh vegetables reach market in garden-fresh color and crispness — without shrinkage or wilt.

DRIED FRUITS

Dried peaches, pears, apricots, raisins, prunes, figs, dates are hermetically sealed and preserved by air-moisture-liquid-tight Pliofilm.

Califor



HERE are a few of the many foods now kept flavor-right in transparent Pliofilm.

This wonder wrap is air-moisture-liquidtight. It keeps wanted moisture in, unwanted moisture out. That's why it's looked upon by dealers and consumers alike as assurance of high quality.

Why not put this salesmaker to work for you? For further information, write: Goodyear, Pliofilm Dept., Akron 16, Ohio.

Everything is better in Pliakilm.

3-way protection against air, moisture, liquids

GOODFYEAR

THE GREATEST NAME IN RUBBER





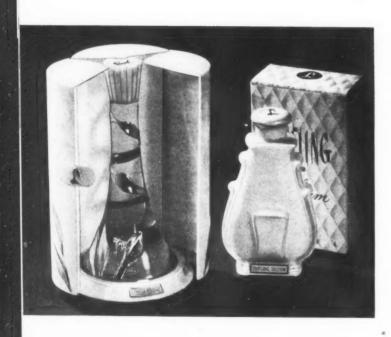
Butter pats packaged in foil



Individual butter patties, aluminum-foil wrapped. in 1 lb. cartons, are now marketed by Armour & Co., Chicago. Believed to contain the first 93-score butter that has been packaged in this convenient form, the Cloverbloom "Sixties" carton holds 60 pats in two layers of 30 each. Each layer is individually wrapped. The new butter-pat package is said to aid in eliminating butter waste on the table by providing exactly the right number of portions. In addition, the home-maker is able to plan how long one package will last. The aluminum-foil and parchment lamination used for the wrapper is the same as that developed for print butter. The broad, shallow carton—itself a new shape for a butter package—is of one piece construction. Its decoration follows that of the whole Armour family. The new "Sixties" package is being marketed nationally.

CREDIT: Foil, Reynolds Metals Co., Richmond, Va.

New cosmetic glamour from Dallas



Frosted glass and an unusual shape for the bottle of Lenel, Inc.'s Trifling talcum powder were selected to enhance the appearance of the talcum. Both it and the clear glass bottle for the new Bellezza cologne also distributed by Lenel are private molds. Gold (24K) decoration on the cologne bottle is fired on. Cologne cap is molded of polystyrene; talcum cap of urea. The cologne bottle is glamour housed in an outer decorative container of unpolished polystyrene. When closed, this unit—made in five parts including base—is a sleek white cylinder also adorned with the golden leaf motif and the "L" monogram on the clasp piece. Two sections of the cylinder swing back like doors to show the bottle.

CREDITS: Bottle designs. Ben Lewis, New York. Bottles, Kimble Glass Div., Owens-Illinois Glass Co., Toledo, Ohio. Talcum cap molded by Formold Plastics, Chicago. Cologne display and cap molded by Modern Plastics, Inc., Dallas, Tex. Carton, Central Carlon Co., Cincinnati, Ohio.

HISTORIES

Polyethylene replaces rubber container

Adoption of a polyethylene bottle by Pennsylvania Salt Mfg. Co. to replace a hard-rubber container (Modern Packaging, May, 1947, p. 126) used for Erusticator is a significant application of this plastic in the chemical field. Metal or glass could not withstand the corrosive action of this rust eradicator and the company developed the special rubber container. Now Erusticator is in a new, specially designed container of flexible polyethylene. A stiff paperboard canister, similar to that used on the rubber container, encases the 14-oz. polyethylene bottle to keep it rigid and prevent spurting. A special applicator top is closed by a screw-type cap. Labels have been redesigned for better readability. Product comes in single- and 3-unit cartons.

CREDITS: Bottle, Plax Corp., Hartford, Conn., using Du Pont and Bakelite polyethylene. Cap, Santay Corp., Chicago. Canister, United Can Co., Phillipsburg, N. J. Label, B. F. Emery Co., Philadelphia. Cartons. Metal Edge Paper Box Co., Philadelphia.



New lever opener for plug-type closure

A convenient lever lift opener on the top of the new Elf can was invented by Judson Dunaway Corp., Dover, N. H., manufacturers of the drain-pipe-opener preparation. Conventional metal can plugs are used and a special machine inserts the wire lever piece through the rim of the plug. The new lever lift is designed to eliminate the need of prying the plug off with knife, screw-driver or other implement. It also allows the user to reclose the can tightly which aids in protecting the potency of the product. Designed to appeal to women, the metal can is slightly smaller in diameter than those ordinarily used so that it is easy to hold. It is lithographed in green, yellow and white, and illustrated with elf characters to tie in with the brand name. Space on the top of the plug is utilized for cross selling copy, mentioning the company's other product, Vanish.

Caedits: Design, Martin Ullman, New York. Cans. Cans. Inc., Chicago.



Cards must sell the goods

SUCCESSFUL SCOLDY LOX BOB PIN CARDS REVEAL THE IMPORTANCE

OF DESIGN STRATEGY TO WIN THE VARIETY-STORE COUNTER BATTLE

Hundreds of thousands—probably millions—of carded items are sold every day over variety store counters. In every case, the cards do the sole selling job.

In this respect, the details of the card—the copy, the illustration, the size—have tremendous significance.

Look at the two cards—old and new—for Scoldy Lox bob pins illustrated on opposite page. To a casual observer the new one comes to life, has more interest, immediate attention value.

What is not so apparent is the adroit strategy required to develop a seemingly simple new design—or the tremendous response of re-orders received by the Scoldy Lox company immediately after introducing the new card.

The story of this redesign is revealed in a memorandum prepared by the designer for the president of Scoldy Lox. The reasoning is basic and it is believed that users of similar merchandise cards will be interested in a resumé of this analysis. The study begins with the old card—its good and bad points.

Color. The yellow background of the old card stood out well when the card was on the counter, was feminine, had eye appeal. Combined with correct contrasting colors, it was believed that it should be retained to maintain identity.

Lacy border. This, it was felt, did not attract the eye, did not promote the sale of bob pins. On the contrary, it had a tendency to remind one of lingeric rather than a hair product. It consumed valuable space, was a passive element and definitely old fashioned. It also called for an additional color, which added to printing costs.

Blue oral. The old blue oval, with blue logotype on a blue background was weak, failed to attract attention and had no memory value. As a spot on the card that had a selling job to do, it was lifeless. It was also not well lettered.

The rose between the words "bob pins" contributed nothing, consumed valuable space which could be devoted to promotional copy. It was old fashioned and a questionable space filler that should be eliminated.

The arrangement of the pins, while compact, was believed to create an unfavorable optical illusion. The pins were packed so closely it was difficult for the shopper to count them. The compactness also tended to give a cumbersome feeling to the card, encouraged it to bend so that the user often tore off the upper half

which had brand identification—thus destroying the possibility of her remembering the appearance of the card for a second purchase.

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Competition. Most competitors had larger cards. This difference in size afforded competitors more space for promotional information, the only place where the potential consumer could read the advantages of each brand of pins, all of them looking as much alike as peas in a pod.

As a rule, it was reasoned, women are not mechanically minded, but are interested in what a product would do for them. Mechanically, if Scoldy Lox was a better pin than others, the card should say so.

The designer also discovered by visiting stores that smaller cards had a tendency to get lost beneath larger ones and in many cases the Scoldy Lox card was fighting a losing battle because of its size.

Most competitors' cards, it was also found, showed such similarity of treatment and design that they were confusing to any woman who might like to remember the brand she was using. Most of the cards had a head illustrating a coiffure—a dangerous and expensive thing to put on a card which a manufacturer cannot afford to change with every new hair style. None of the competitors' cards, it was stated, had a spark of individuality to make a woman bob-pin conscious if she did not have to use them to keep her hair out of her eyes.

Die cul. The pattern of the old card with its additional scallops at the top had a tendency to hook into other cards on the counter and thus get torn and dog-

It was further believed that the card should encourage the desire of every woman to make herself more attractive, but should do so without flaunting a perfect coiffure before her. The card should be up to date, yet ageless in its design. Therefore, the company was convinced that a modern head should be used if the card was to be used for any length of time. They believed it should also follow a different pattern than competitors had followed.

The new cards

Guard of Glamour. Since the company's advertising agency had suggested the use of a male figure to tie in with a new name for bob pins, "Guard of Glamour," it was suggested that this idea be interpreted in a more feminine way by showing a group of snappy majorettes.

These figures, it was reasoned, would not become dated so long as there are parades. Since a majorette is a leader of a parade, such figures would suggest immediately that the product was out in front, new, improved. A larger card was adopted to hold its own in the counter shuffle and to give more space for design elements and sales copy.

The large central figure of a majorette eliminated the need for a coiffured head and the hazard of the card being out of date too soon. It also gives an individuality to the Scoldy Lox card among its competitors. The figure of the girl holding an illustrated pin in her hand helps to illustrate the product where the consumer sees it and remembers it.

The five outline figures of majorettes, partially covered by the arrangement of the pins, contribute lively additional interest. The name "Glamour Guards" modernizes the product and does not associate it with

old-fashioned bobbed hair. The words "Lasting Grip," prominently displayed, emphasize the mechanical efficiency of the pins. The yellow background maintains continuity of product identity, while the new oval printed in dark blue with new white-lettered logotype gives proper emphasis to the brand name, as it should. Red and blue were selected as good contrasting colors with the yellow background, so that the red uniform of the central girl figure attacts immediate attention.

This card, which can be printed in four colors instead of five as the former one, also accomplishes a saving in printing, which helps offset the extra cost for the increased size of the new card.

CREDITS: Design, Ernst A. Spuehler, Chicago. Majorette illustration, George Petty, Chicago. Cards printed by Addison Lithographing Co. and Stecher-Traung Lithograph Corp., both of Rochester, N. Y.

MAJORETTES provide a lively pictorial interest not so likely to become outmoded quickly as are the illustrations of coiffured heads often associated with hair products. Slightly larger new card provides greater promotional space. Brand identity is strengthened by new lettering in white on dark blue oval. New die-cut shape eliminates former scalloped edge which hooked into other cards on the counter. The words, "Lasting Grip," prominently displayed, emphasize the mechanical efficiency of the bob pins.





CLEAR WHITE SURFACE of machine-coated stock, accentuated by blue lettering, gives clean appearance to Walker oil filter cartridge packages suggestive of function. Small type is relegated to side and back panels, front kept uncluttered. Cartons for Laminar and sock-type cartridges are distinguished by symbols on front panel and top.

Identity for auto parts

WALKER'S PACKAGES FOR A NEW LINE OF REPLACEMENT OIL FILTERS

INVOLVED CONSTRUCTION DETAILS AS WELL AS A CLEAN-CUT DESIGN

The Walker Mfg. Co., Racine, Wis., has long been identified as a leading supplier of automotive mufflers, jacks and lifts. Recently the company introduced a line of oil filters, oil filter cartridges and related accessories. In marketing this large new family of products—including more than 60 types and sizes and three different styles of filters—the company had to work out a complete new packaging program.

As envisioned by the independent package designer chosen to handle this assignment, the primary requirement was that of identification. This involved not only company identity, but also that of filter size and type. Like spark plugs, fan belts, etc., oil filters and cartridges must be selected for the particular make and vintage of car; no one filter fits them all. The new Walker line also includes one style of filter which is unique in construction and requires packaging treatment which will distinguish it from other types.

After identification, the designer's next objective was to give the packages a clean-cut, quality look suggesting the value of the merchandise. Finally, it was necessary to devise suitable accessory packaging and packaging of related parts for particular installations. The logical outgrowth of this effort consisted of individually packaged installation kits for specified makes and models of cars, tractors, etc., and other packages for such items as flexible filter lines and fittings.

Since some items in the line are quite heavy and require substantial support, the entire packaging program required close attention to package construction as well as design. Reverse tuck-end folding boxes with locking flaps were chosen for the two types of filter cartridges and the sealed unit filter. Containers for the filter lines and small brass fittings are one-piece folding boxes with tuck-in top flaps. The oil filter installation kits are of two-piece construction and in the larger sizes have the folding type of body and cover with glued seam.

Packages used for the Laminar-type and sock-type oil filter cartridges follow the same general design treatment, except for different identifying symbols on the front panel and top flap and varying explanatory copy on rear and side panels. Printed on 26-point machine-coated board, these packages make liberal use of white, contrasted with a blue panel around the bottom, to

emphasize cleanliness symbolic of the use of the product. A minimum of red—used for the words "Oil Filter" on all but the back panel of the packages, on the top flap symbol and as headings on the back panel copy—lends additional sparkle and increases the quality appearance of the boxes.

Incorporation of the new "Laminar" trademark calls attention to the patented construction of this line of filters, while their advantages over conventional types are explained on the back panel. The Walker name appears in large, sans serif capital letters on all but the back panel of the package. Side panels duplicate the front, except for the addition of guarantee statement on one panel, patent number data on the other and a white block on both which bears particular use information.

The RC numbers for the various filters are set in white panels which give them prominence in identification for convenient shelf storage. These numbers appear on the front, sides, top and bottom panels and are visible regardless of package position. The back panel is devoted to further product information and sales features of the filters.

On the sock-type replacement cartridges, other selling copy is substituted for the guarantee and patent number information used on the Laminar packages. In place of the Laminar trademark on front panel and top and bottom flaps, identifying concentric circles are employed. These symbols provide immediate differentiation of filter types, while retention of the basic design preserves family recognition and lends impact to mass displays.

The SU-type filter consists of a cartridge and outer case combined in a sealed unit. To eliminate any possible confusion between this product and the replacement cartridges, an illustration of the actual filter appears on the front panel and both side panels of the folding box, which is also of 26-point clay-coated board. Family identity is retained by continued use of the blue panel and red accent lettering on the words "Sealed Unit" and "Oil Filter."

Having a heavy formed sheet metal shell, the sealedunit filter requires anchorage within the package. This is accomplished by extending the front panel of the box at both top and bottom and folding it back within the package to provide platforms about 1 in. from each end of the container. These supports are die cut to receive the projecting inlet and outlet connections of the filter, thereby securing the device against lateral as well as vertical shifting. Deeply interlocking flaps on top and bottom further insure against movement of the filter within its package.

The Walker Flexible Line installation kits include a number of parts such as inlet lines, outlet lines, fittings, bolts and lock washers. Because of the variety of assortments involved, several package sizes are required. To provide stability and prevent the contents from being spilled by inadvertent dropping, body and cover are reversed and a wrap-around label used to secure them together. Box constructions utilized for the kits include outfold glued and a hardware style. These

packages are printed in blue, with the reverse white of the boxboard providing a second color.

Gummed paper labels for this group of packages are printed in blue on yellow stock. All listings of parts and other specific data are carried on the label rather than on the box itself. An extra package is provided to handle any odd assortment not having one of the standard labels. This box has a form printed directly upon it which is filled in when the assortment is made up.

Packages for the Walker Universal oil filter lines are made of 30-point bleached (Continued on page 182)

UNMISTAKABLE identification is given sealedunit filter by reproduction of it on carton. Front panel of carton is extended and die cut to form internal supports for heavy filter. Note space for the catalog number on front panel base.



WRAP-AROUND LABEL band on yellow stock is used to identify numerous Flexible Line installation kits, which differ for each make of car. Since parts are heavy, body and cover of two-piece box are reversed to minimize accidental spills. Band label serves as a seal for carton.





LARGEST FACTOR in "phenomenal" sales success of these stainless steel flatware sets, say Sears, Roebuck officials, is the package. Functionally and decoratively, the box serves to upgrade the merchandise.

Sets that stay set

LOCKING STRIP IN A DIE-CUT PLATFORM SOLVES

PROBLEM OF TABLEWARE-SET BREAKAGE FOR SEARS, ROEBUCK,

WHILE COLORFUL FOLDING BOX LIFTS RETAIL SALES BY 200%

The upgrading of merchandise is recognized as a legitimate function and oft-sought goal of effective packaging. Seldom, however, has it been possible to achieve such a happy combination of merchandising appeal and product protection as Sears, Roebuck & Co. incorporates in a recently introduced folding box for stainless steel tableware sets.

For years stainless steel flatware has been shipped to Sears retail stores and to mail-order customers in a very low cost, plain chipboard box with all pieces bulk wrapped. Returns arising from broken packages and lost merchandise became so excessive that the company resolved to find a package which would be satisfactory for display of the merchandise in retail stores and which also could be used for safe shipment of sets to mail-order customers.

Over a period of about a year, Sears thoroughly tested eight different types of flatware boxes manufactured by a conventional method. All were rejected because of unsatisfactory construction or high cost.

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Upon the completion of these tests, Sears representatives concluded that boxes of the style customarily employed for this type of merchandise would not meet their requirements. Accordingly, A. R. Kissling, hardware department buyer; W. H. Taylor, Sears packaging engineer and Eric Rau, consulting engineer affiliated with a major supplier, decided to discard all preconceived notions of what a tableware package should look like and make a completely fresh approach to the problem. This cooperative activity necessitated building the desired box "from the ground up" instead of attempting to adapt it from one already in existence. In a word, its ultimate construction and design details were dictated by conditions of actual usage.

While the container presents a striking appearance in its dramatic, yet restrained employment of red and gray colors, it is most noteworthy from the standpoint of construction. The neat, ingenious method by which the tableware pieces are rigidly held in the package, without recourse to supplementary wrapping or cumbersome means of anchorage, is the key to its success in both display and shipment. Patents have been applied for covering the manner in which the tableware items

are supported within the box.

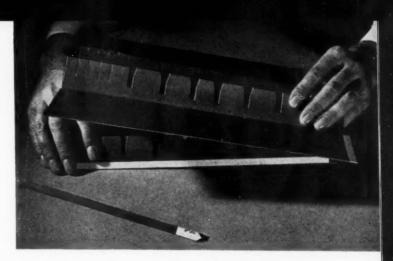
Of patented hollow-wall construction, the base of the box, like the collapsible cover, is of 0.025 solid kraft stock, bleached on one side and printed letterpress in two colors. The printed surface of the cover and grey portion of the container body are varnished for added eye appeal, while the die-cut supporting platform and inside walls of the body are left unvarnished in order not to detract from the sparkle of the tableware.

Accompanying photographs illustrate how the various tableware items are held firmly in the package by means of the die-cut platform. The longitudinal "bridge" at about the center of the platform, of double thickness for added strength, is slotted for insertion of fork and spoon handles in stacks and has wave-rule cuts at each end which grip and hold the knife blades. The knife handles rest in slots at each end of the platform and extend into die-cut openings in the inner wall of the base. The locking strip, which slides into position beneath the bridge after forks and spoons are in place, is tapered at one end for ease of insertion.

Packing the flatware in this new-type package is a relatively simple and rapid operation-another feature of the box which appeals to Sears merchandising officials. After the forks and spoons have been placed in the die-cut wells and the locking strip inserted, the platform assembly is anchored in the body of the box by means of tabs at one end which slide beneath the frame. Knife handles are then slipped into the die cuts in the platform and the corresponding openings in the wall of the package. As the knife blades are pressed down into the serrated slits in the bridge of the insert, they hold fast and also serve to increase the pressure of the locking strip on the spoon and fork handles by drawing it tighter.

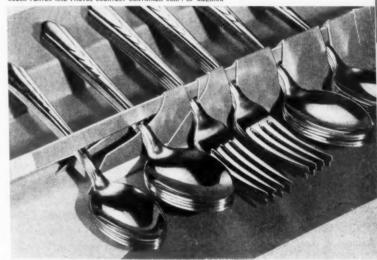
The Sears, Roebuck stainless steel flatware line is offered in three sets including 24, 32 and 44 pieces and

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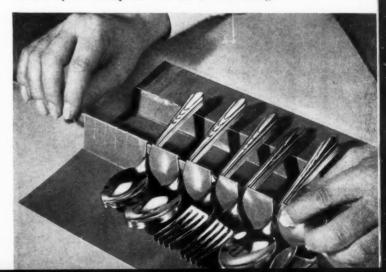
ASSEMBLY of platform starts with placing of second thickness of die-cut board under slotted bridge for double strength. In foreground is strip which finally locks fork and spoon handles in slots. Note wave-rule cuts for knife blade and scored recesses for the knife handles.

COLOR PLATES AND PHOTOS COURTESY CONTAINER CORP. OF AMERICA



CUTAWAY SECTION, showing how double thickness of bridge gives strength to slots. Locking strip also is doubled over in V-shape, touching handles at two points for greater security.

LOCKING STRIP is shoved through after forks and spoons, in stacks of four, are in the slots. This makes box practical for mailing and prevents easy break-up of sets in retail selling.



priced at \$6.95, \$8.95 and \$11.95, respectively. The 44-piece set weighs slightly more than 4 lbs., indicating the necessity for rugged constuction if the container is to withstand normal shipping hazards. The same box, with a modified insert platform and different color combination, has been adopted by Sears for another 24-piece set having plastic handles.

All three of the flatware assortments are packaged in the same container, the only difference being in the arrangement and number of slots in the platform insert. Over-all dimensions of the insert are identical for all three assortments, but the die cuts are tailored to the requirements of each set. Thus the depth of the fork and spoon-handle wells is increased in the larger sets so that thicker stacks of these items can be accommodated. The width of the locking strips is also proportionately decreased. Inserts and locking strips are clearly identified by code numbers so there can be no mistaking which insert is used for each set.

For shipment, 10 of the packages are packed to a corrugated shipping case, while on mail-order shipments, the individual packages are placed in a double sleeve which provides the required protection for the exterior of the box.

"The acceptance of this new box in our retail stores has been nothing short of phenomenal," states Mr. Kissling. "Our sales have been increased in many cases from 100 to 250%. Many of our stores which have been reluctant to sell stainless steel tableware are now putting it in, since the merchandise is properly displayed in the container in which it is received. At this writing our estimated over-all sales for this item will be increased approximately 200%.

"While the stainless steel tableware packed in this box is of very fine finish, the largest factor toward the final sale of this goods is the display box we are using."

CREDIT: Frame-Vue carlons, Container Corp. of America, Chicago.

Powers-girl look for new cosmetic line

A new line of cosmetics by John Robert Powers, famed creator of the Powers Girl models, is based on a new principle—all liquid preparations except powder and lipstick. This presented an unusual opportunity for a new idea in cosmetic packaging.

All nine products, with the exception of lipstick—four for skin care and five for make-up are packaged in private-mold glass containers with polished aluminum caps simulating a handsome crystal and silver dressing-table set.

The bottles, rectangular in shape, are low and squat to eliminate tipping and spilling and to fit the hand so they are easy to hold. The only round container is the powder jar, also of glass.

The fluting of the glass containers is designed to pick up light, thus giving greater display value to the color of the products. All the glass-packaged products are shipped without throw-away cartons, so that the actual glass and aluminum packages become display pieces in their own right.

Elimination of the cartons has the added advantage of saving labor at the factory in packing the merchandise, saving time in the retailer's stock room and behind the counter. Dispensing with the throw-away carton also means a direct saving in cost, of course, and cuts shipping weight.

The glass containers are packed in units of six in corrugated shippers with corrugated partitions to hold the individual items in place. Units of six

are then packed in standard shipping cartons with shredded paper for cushioning against shock. The John Robert Powers packages have been shipped since October. As yet there has been not a single report of breakage or damage.

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CREDITS: Design, Josephine von Miklos, New Canaan, Conn. Glass containers, T. C. Wheaton Co., New York, and Hazel-Atlas Glass Co., Wheeling, W. Va. Aluminum closures and metal lipstick case, Bridgeport Metal Goods Mfg. Co., Bridgeport, Conn. Aluminum foil laminated labels, The Foxon Co., Providence, R. I. Shippers and shipping cartons for glass containers, Hinde & Dauch Paper Co., Sandusky, Ohio. Folding carton shippers for lipsticks, Acme Folding Box Co., Inc., New York.

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The trend to plastic dispenser cases for razor blades is joined by Vulcan Safety Razor Corp., Maplewood, N. J., with a spring-loaded polystyrene case which serves the triple purpose of package, dispenser and receptacle for used blades. Unlike those of some competitive brands, this case does not do away with individual wrapping of the blades. Vulcan—which is a large producer of private-brand blades as well as its own Craftsman and Hammer Brand—claims that wrapping is still essential to protect the fine edges from dulling and corrosion.

Called Slide-Pak, the case design and assembly emphasizes protection of the blades and flexibility in use. A push of the thumb on the top blade, which is exposed through an oval-shaped opening in the top of the Slide-Pak, guides it through a dispensing slot on the side. Used blades are slipped into a compartment through another slot near the bottom of the case.

A single-sized Vulcan case will hold either five or 15 blades. Before the three plastic pieces are assembled, the correct number of blades is stacked in the top piece of the case at one time. The blades are held by a metal spring attached to the second and middle piece. This spring—the only non-plastic part of the case—keeps the blades pressed against the oval opening in the top piece. After the top is filled, the other parts are

snap-fitted together. Vulcan packs different quantities of blades in a case, depending on the type of blade, and this spring arrangement solved what would have been an expensive problem of package duplication.

Triple identification as to type of blade is achieved on the Slide-Pak by color of the case, by brand name and by the distinctive color and patterns of the paper wrappers seen through the top opening. The case is molded in blue-tinted polystyrene for the Craftsman carbon-steel blades; in gray for the Craftsman stainless-steel blades and in ivory for the Hammer Brand stainless-steel blades. The name is hot stamped on the sides before assembly and, for the Craftsman, on the top and bottom as well.

A larger version of the Slide-Pak that holds from 25 to 50 blades is molded in two pieces, with the compartment for used blades on one side instead of next to the bottom. The two parts are cemented together. Some of these large versions are being merchandised by Vulcan as advertising specialty items by hot stamping the company names on the side of the package.

The Slide-Pak itself is used in other colors by two leading New York stores as the package for their private-brand razor blades manufactured by Vulcan.

Credits: Dispensers molded by Plastene Corp., Crawfordsville, Ind., of Dow polystyrene.

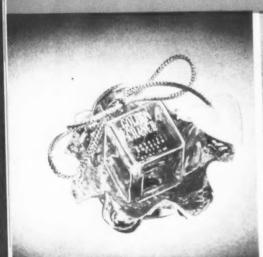




MODERN





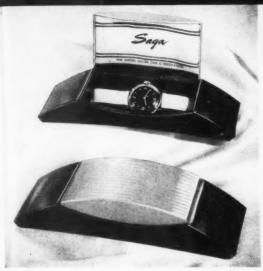






6

MODERN PACKAGING







8

PHOTO COURTESY HERCULES POWDER CO

41

10

PACKAGING PAGEANT

New England Pie Co. has adopted a printed opaque glassine bag for its frozen pies, designed for impulse buying. Colors were carefully selected to contrast with competitive products and for psychological appeal when in a frozen food cabinet. Bags, Milprint, Inc., Milwaukee. Design, Raymond L. Sines, California Arts Guild, San Francisco.

Vaca Valley Orchards, Vaca Valley, Calif., capitalizes on the sales-luring looks of its fruit and fruit-candy arrangement in boxes with hoods of transparent cellulose acetate. Design and brand name are silk-screened on covers. Carton, Fleishhacker Paper Box Co., San Francisco, using Celanese Corp. cellulose acetate (Lumarith).

consumer reaction to pre-packaged fresh eating apples grown and marketed by Welch & Pulsipher, Wenatchee, Wash., is reported excellent on the West Coast. Market research indicated purchasers usually bought 2 lbs., so each paperboard tray holds four to six apples. The tray is overwrapped with printed cellophane of the LSAT type which allows the apples to "breathe." Wrap, The Dobeckmun Co., Cleveland, Ohio, using DuPont cellophane.

A new style bottle with an extra base which allows it to be tilted at an angle when opened, without fear of the contents spilling, has been adopted by Natural Sugars, Inc., for Early Morn breakfast syrup. The tilt feature also highlights the lithographed cap when the bottle is displayed. Bottle, Thatcher Glass Mfg. Co., Inc., Elmira, N. Y. Cap, Phoenix Metal Cap Co., Brooklyn. Labels, The Kaltman Press, Inc., Woodside, N. Y.

All is not frou-frou in this Harriet Hubbard Ayer package for Golden Chance perfume. The golden leaf made of heavy-gauge foil, under the perfume bottle, can be re-used as an ash tray. The square bottle—a replica of an old-fashioned inkwell—is decorated with gold cord and paper hearts. Leaf, American Merri-Lei Corp., Brooklyn. Labels, Graphire Corp., New York. Bottles, Swindell Bros., Inc., Baltimore. Closures, Richford Corp., New York.

Bristles of the Dura-Broom, manuactured by Modglin Mfg. Co., Glendale, Calif., are made of plastic and become charged with static electricity while in use so that they actually snap up dust and lint. To protect the bristles and to aid in merchandising, a printed transparent Pliofilm cover is slipped over them. Cover, Shellmar Products Corp., Mt. Vermon, Ohio, of Goodyear Pliofilm.

A successful package must convey at a glance the nature of its contents. An interesting example is the new four-color carton for Fulton's Plantabbs—plant food tablets. The previous carton, printed in yellow and blue in a cluttered design, the company says, might have held anything from corn plasters to camera film. The new one, with full-color reproductions of flowers against a pastel background and neater type faces, is unmistakable in product identity. Carton (Fidel-I-Tone printing process), Lord Baltimore Press, Baltimore, Md.

For its new Saga line of popular-priced watches, United States Time Corp. makes use of plastic materials to create a package with strong masculine appeal. Both case cover and base are injection molded of cellulose acetate in blue and gray colors. Cases molded by Watertown Mfg. Co., Watertown, Conn., using Koppers cellulose acetate.

Brown-Forman Distillers Corp. has brought out a gallon-sized pottery jug adapted from a famous old glass design for its King Black Label whiskey. Given a rich black surface, the highly glazed jug has re-use value. A special process brings out the brand name in white relief. Jug, Louisville Pottery Co., Louisville, Ky.

A practical way of including a premium item with the regular product is shown here with the Ranburn Dry Wall Kit package. A spreading knife molded of Tennessee-Eastman Tenite plastic comes with the kit, which includes tape and joint cement for treating wall-board joints. Carton is slotted to hold knife flat against box. Carton, Corson Mfg. Co., Lockport, N. Y.

West Coast carrot operation

TERVEN COMPANY'S HIGHLY MECHANIZED PACKAGING PLANT

ILLUSTRATES THE ADVANTAGES OF SPECIALIZATION AND SHOWS

ONE METHOD OF SOLVING PRODUCE SHIPPERS' PROBLEMS

If produce pre-packaging is to be pushed back eventually to the shipping point—as economic logic in most cases seems to dictate—the shape of things to come may be found in a few West Coast establishments where packaging already has been mechanized and developed to a remarkable degree.

These West Coast operations have become highly specialized and they tend to specialize in those types of fruits and vegetables which are hardy and able to stand a long period of package confinement. There are sizable plants packaging nothing but oranges; there are those which handle nothing but tomatoes; one plant operates on head lettuce exclusively and there are several successful pre-packagers of the hardy greenstuff such as

spinach and salad mixes. Such specialization seems to be the best course at this stage of the development, for each produce item has its special requirements, the equipment for handling it is expensive and the operation apparently will pay off only where high volume can be steadily maintained at a minimum labor cost and without the overhead burden of change-over time and idle machine time.

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For a study of today's high volume, highly specialized operation, no better subject could be found than the Lewis A. Terven Co., Salinas, Calif., which ships carrots—just carrots—and is reputed to be the world's largest shipper of that product. To meet the requirements of its various markets, Terven uses a half dozen



BOX-MAKING machine provides containers for bunch carrots. Finished crate, which measures 24½ by 18¾ by 13½ in. is lifted at an angle to a point near roof, from where it will slide by gravity to the filling line.

PACKING LINE for bunch carrots. Pre-tied in the fields, carrots are conveyed to the building, dropped into immersion tank, through cooling and spraying tunnels in rear and emerge at 55 deg. Seen at the right is a narrow return belt for culls, loose carrots and missed bunches.



different types of bulk and unit packages. And its packaging development has led to innovations in protective treatment and mechanical handling of the product that are indicative of the requirements in any similar operation.

Among the special features of the Terven operation are:

1. The use of a chemical additive for ice that makes it last longer and stay colder, and also creates a moldinhibitive atmosphere.

2. The use of a sprayed wax protective coating for topped carrots.

3. The first use of an automatic wirebound-boxclosing machine that greatly reduces costs in that department.

Located in the heart of the West Coast "salad bowl," Terven last year shipped 2,300 cars of carrots, the produce of more than 2,000 acres.

From the month of June through Christmas, the carrot operations are centered at the main plant in Salinas; February through May, shipments are made from the Imperial Valley, and January is a vacation month for all hands.

Terven customers include every possible category—chain and independent retailers, brokers, exporters, hotels and restaurants, ship chandlers and processors. This accounts for the wide variation in package types, which run the gamut—sawn shook crates, wirebound boxes, mesh bags, protective coatings, gunny sacks, used orange boxes and cellophane bags.

The Salinas plant is a clear-span building 100 by 240 ft. Packing lines run the entire length, occupying slightly less than half the width, the rest of the area accommodating office and service facilities, but largely left free for handling, storage and movement of the product.

Two different types of carrots are handled at the

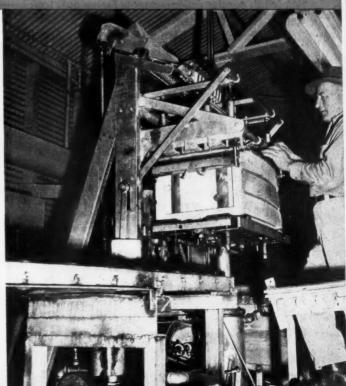
LOADING TRUCK with Terven bunch carrots, trade-named Gold 'N Fresh. Roller conveyors bring boxes directly from nailing machine to car or truck at any dock or entrance. Just before leaving the shed the lithographed labels are applied to crate ends.



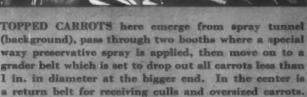
NAILING MACHINE automatically closes the L. A. crates of bunch carrots. Operator inserts a lid in the holder at top of the machine; the box is gripped by lugs and forced up against the lid by an air-activated hydraulic piston while the nailing bars press nails home. Piston here is illustrated on up-stroke.

SPECIAL ICE, chemically treated to last longer, is pulverized and shoveled atop filled crates as they pass on conveyor. Among the advantages claimed for the refrigerant are its slower rate of melting that reduces the transit time lost in re-icing; its preservative action that inhibits the growth of bacteria, etc., and retards oxidation of color pigments.











CRATES ARE LINED with creped parchment paper of high wet strength before being filled with the processed, topped carrots. An operator criss-crosses in the box two strips of the liner paper that are sufficiently long to fold up over the contents and cover the top with four thicknesses. Such packs are shipped to Safeway Stores throughout the country.

Terven plant in Salinas—bunch and topped. Treatment accorded each is distinct and each type of operation has its separate packing line.

Bunch carrots

Bunch carrots are tied in the fields by the pickers in bunches of three to six, with a wet-strength printed paper tie around the base of the feathery tops. They are loaded in regular order—carrots facing out, tops in—on bin-sided trucks for transport to the shed.

At a loading platform just outside Terven's main building, the bunch carrots are taken by hand from the trucks and placed on a high-sided conveyor that moves them into the building. Hand loading is required here to prevent damage to the carrots or tearing from the stems.

Inside the building the carrots drop into an immersion tank through which they are moved slowly on link conveyors. This soaking accomplishes two things: first, it cleans the carrots; second, through ice refrigeration the temperature of the bath water is reduced to 40 to 42 deg. F. and the trip through this water, lasting between one and two minutes, draws the field heat from the vegetables and stabilizes their temperature at approximately 55 deg. It is sought to maintain this temperature fairly constantly during the remainder of the processing, storage, shipping and sale of the product. According to Glen Lewis, Terven's general manager, temperature variation is the greatest factor in deterioration. A relatively high temperature, held constant, is

more beneficial than lower temperatures which vary widely.

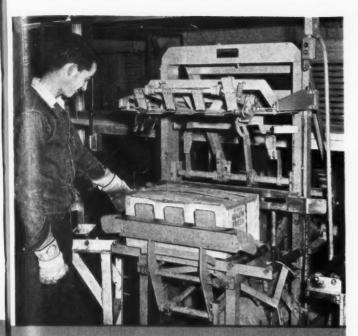
The special refrigerant used to cool the water is Tw-Ice, developed by a Los Angeles laboratory. Although the formula is secret, the method of use is simple. It is based on the addition of 6 to 9 cc. of the formula solution to each 300-lb. block of ice. Ordinarily this is added as a liquid to the water before freezing, but Terven technicians rigged an injection mechanism which sprays the solution on the ice just after it has been crushed. The crushed ice is then run through a pulverizer and the resultant product is equivalent to pre-treated Tw-Ice.

Terven uses Tw-Ice also for topping, bunker and blown icing in shipping. It is in this use that the qualities of the refrigerant are especially apparent. These are:

- 1. Slower rate of melting. This reduces or eliminates transit time loss for re-icing.
- 2. Preservative action. In the pre-cooling and washing tank, and also in the cars, as Tw-Ice melts, it releases the chemical additive. This chemical inhibits the growth of bacteria, mildew, fungi and slime, preserving the carrots in salable condition longer than when untreated. Terven estimates this added life at better than two weeks.
- 3. Color preservation. The chemical also retards oxidation of the color pigments in the carrots.

These advantages, in Terven's view, justify the approximately 15% cost differential.

After soaking, the bunch carrots proceed up an in-



NEW MACHINE is this one which automatically closes wirebound boxes. Boxes are formed up from all four sides after liner has been folded in and cover tilted back. Preliminary closing brings lid down and final stroke engages and crimps wire. With one operator it handles 3,200 boxes in eight hours.

clined tunnel through high-pressure sprays and emerge onto a broad-web packing belt, ready to be placed in shipping containers.

These containers begin back near where the carrots entered the packing shed, in the form of shooks and end pieces. There they are fabricated into Los Angeles (L. A.) crates on a semi-automatic box-making machine. Shooks and end pieces are sawn of pine, delivered in bundles to the shed by the box companies. These companies fabricate the lids separately, segregating them and delivering them to the opposite end of the packing line.

The L. A. crate measures $24^{1}/_{4}$ by $18^{3}/_{4}$ by $13^{1}/_{2}$ in., outside dimensions, and when packed with carrots nets approximately 120 lbs.

The box-machine operator places the nailed boxes on an inclined conveyor which lifts them at a steep angle to a point near the roof of the shed, from where they travel by gravity down a roller conveyor to a station opposite the point where the carrots emerge from the spray tunnel.

At this point an operator criss-crosses in each box two strips of liner paper, sufficiently long to fold up over the contents and completely cover the top of the box with four thicknesses of paper. This paper is a rippled, insoluble, parchmentized crate liner, with high wet strength.

From the lining station the crates cross over the carrot line to a motorized line paralleling the carrot belt, with a walkway for the packers between. This con-

veyor carries the boxes in a straight line past the top icing bunker, lidder and on out to the cars or trucks. It is stopped and started by the lead man as each batch of crates is filled.

The bunch-carrot belt runs continuously. At its end, culls, loose carrots and bunches not packed the first time by drop onto a short cross belt and go back to the head of the line on a narrow return belt. Culls are removed and bunches drop back onto the main belt for another trip.

Packers fill the boxes, laying the bunches in alternately facing layers. Upper rows of carrots extend well above the top of the box.

As the filled crate passes the icing bunker, a heaping shovel of pulverized, treated ice is placed on top, directly on the carrots. A worker folds the four ends of the liner over the top, covering the ice and the carrots and binding the whole securely together.

The filled box then goes directly into an automatic box-nailing machine. The machine operator inserts a lid in the holder at the top of the machine, the box is gripped firmly by lugs around all four sides at the bottom and an air-activated hydraulic piston forces the box upward against the top. The pressure holds for an instant, during which the nails are forced in at each end simultaneously and secured. The box is then dropped, released and sent on its way along a roller conveyor toward the shipping point.

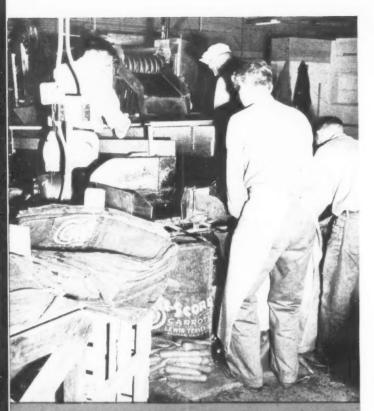
Just before leaving the shed, lithographed labels are applied to each end of the crate. These labels have an adhesive backing that penetrates the wood and dries quickly. Before applying, they are soaked in water, which serves to remove a protective coating and also to soften the adhesive; after setting, the adhesive is no longer water soluble.

Topped carrots

Terven was one of the first to ship topped carrots in quantity. Shortly after he began in 1938 at the age of 32, as a "gunny sacker" buying up small patches that nobody else wanted and making money with them, he was working with Safeway Stores to develop techniques for handling carrots in this form. The grocery chain had been interested for a couple of years, but could find nobody to supply them. Today Terven is Safeway's sole carrot source during nine months of the year, the bulk being in topped carrots.

Carrots are topped in the field and packed in burlap bags. Bags are stacked on pallets in flat-bed trucks. Pallets are unloaded from the trucks by fork lifters on motorized materials handlers which are used throughout the plant. These loaded pallets are kept in the handling areas until needed, then carried by the lift trucks to a dumping platform at the end of the building where the bunch-carrot line starts. The sacks are dumped by hand onto an inclined dirt shaker which removes field litter from the carrots as it moves the produce forward.

The topped carrots drop from this shaker into a soaking tank where they receive the same treatment as the



LARGE CARROTS, suitable for institutional and canners' use, are shipped in 50-lb. open-mesh bags. Bags are held open on spreaders, carrots scooped in as they come off grading belts. Bags are then check weighed, sewn shut and stacked on pallets for moving to car or truck. They, too, are top iced.

bunch vegetables. This is followed by a high-pressure spray tunnel.

At the end of the spray tunnel the topped carrots pass through two booths where they receive a sprayed coating of wax. This preservative is carried in a cold water emulsion and deposits a microscopic coating on the carrots, which does not hermetically seal them, but allows them to breathe. It is said to arrest bacterial growth and deterioration. Developed by the same laboratory that discovered Tw-Ice, this formula is also secret. It came in response to Terven's problem with shrinkage in filling Navy contracts for overseas shipments early in the war. On shipments to South Africa the loss was running 30% of shipped weight. The coating cuts shrinkage to from 5 to 8 lbs. per 90-lb. container. Terven now calculates net-weight designations on topped packs on the basis of what the pack will weigh at destination. Bunch carrots cannot be wax treated; the wax mats the tops, causing them to mil-

From the waxing booths, the carrots drop onto a grader, developed in Terven's shop, which eliminates a crew of eight to 10 hand graders. It consists of notched rubber belts running longitudinally, adjacent belts operating at different speeds. Spacing between the belts is adjustable. Notches and speed variations move

the carrots along, turning them until they lie parallel to the belts. Those smaller in size than the belt opening fall through; the remaining carrots then proceed to the culling belt.

This belt is set at 1 in. Smaller carrots fall through to a belt which carries them to pre-packaging, bagging and other packs. Larger sizes go on to a wide sorting belt, on each side of which stand six to eight girls. They sort out all excessively large sizes that are good and drop them onto a belt below the main belt which takes them back to the point where the first grader breaks the line. Here they go onto a cross belt that takes them out toward the sacking station.

The sorters also cull out imperfects, blights and spoiled carrots, throwing these onto a belt which takes them back to the branch-off and shunts them to another belt for disposition.

This leaves only the good topped carrots, ranging from 1 in. to approximately 2 in. in thickness at the large ends. They come off the belt onto an apron where they are scooped into veneer-shook wirebound boxes which have been previously fitted with a single sheet of crate liner of the same type as used for the L. A. crate. Three packers working simultaneously are required to keep up with the grading line when working at normal capacity.

These boxes, called "Martin" or "Bruce" boxes in the trade, measure 22 by $16^{1}/_{4}$ by 10 in. and pack out net at approximately 60 lbs. They are furnished by the maker already set up with the Terven trademark and other information stenciled on each end. Each box passes over a checking scale where the weight is adjusted if necessary.

The box then goes into the automatic wirebound-boxclosing machine—the first of its kind to be placed in use in Northern California. This machine forms up the box from all four sides after the operator has folded in the liner and tilted the cover back against the carrier. On its next pass, the machine brings the lid down in a preliminary closing, lining up the wire loops that close the box. On the final stroke, it engages the loops, threads the lowers through the uppers, bends the lowers back on themselves and crimps them tight.

Prior to installing this machine, two workers would close an average of 1,300 wirebound boxes per day. The machine, requiring only one operator, closes 3,200 per day, doing a neat and efficient job. At present, all Safeway shipments are made in wirebound boxes, this being Terven's only customer for this package.

From this same station are packed also the loose carrots for local and short-haul delivery. These are packed open in used orange boxes, without covering. They are loaded directly into trucks without icing and hauled to markets within overnight driving range.

The large-sized carrots are shipped mostly in 50-lb. open-mesh bags. They come off the take-off line onto a small apron. The operator hooks a bag under the lip of the apron and scoops the carrots in. The bag is then check weighed, sewed shut and stacked on pallets for moving to car or truck. Bagged carrots are shipped in

the same fashion as boxed or crated. They are top iced and often are mixed in cars with the other packages.

The culled carrots are packed in burlap bags and sold locally for stock feed. They are not processed, but fed fresh, being much in demand by the dairy-herd operators.

Unit pre-packaging

The Terven organization has been especially active in developing pre-packaging techniques. This is the third season in which they have packed carrots in consumer-sized packages and their faith in this type of merchandising is great. Each season they have introduced a greater degree of mechanization into their pre-packaging line, aiming at lower unit costs for the packaging operation. They are just placing in operation the most highly developed line of this kind yet achieved. While they will fall short of the volume they had expected this year, the Salinas shed will ship approximately 1,000,000 bags before the season closes. Highest rate achieved to date is 20,000 bags per day, but the new set-up will make possible a rate of 100,000 per day, under ideal conditions.

The pre-packaging line begins at the take-off belt where the 1-in. carrots are graded out of the main line. Carrots falling through this grader range from $^3/_4$ to 1 in. They are carried on a belt to a wheel resembling a merry-go-round, 30 ft. in diameter, made of sheet metal and angle iron, braced inside with 4-by-4 timbers. Hub of the wheel is a track 6 ft. in diameter on which run casters supporting the spokes which radiate to the periphery. A steel post in the center provides additional support with four wire-rope guys which run from it to the outside edges of the machine. A 2-h.p. electric motor, slowed down, is geared to the hub, providing motive power to turn the wheel at a rate controllable by the gearing mechanism.

Around the perimeter of the wheel runs a tray 16 in. wide with a 2-in. lip. Back of this is a perpendicular flange 18 in. high. On its upper edge are mounted 30 metal scoops in swivel gimbals. The scoops have been evolved by experience in packaging carrots during the past seasons. They are 6 in. wide at the back, which is closed in, tapering at the front to a rounded snout which conveniently fits the mouth of the 1-lb. bag being used. A support underneath allows the scoop to tilt forward only. Flanges along the rear edges permit it to be grasped and adjusted easily. A guard over part of the spout prevents carrots from spilling.

Carrots drop onto the tray at the edge of the wheel ready to be packaged, cullers having inspected them on the belt leading from the grader. On one side of the wheel five girls fill the scoops, experience having taught them to place carrots weighing about 17 oz. on a scoop by feel. Filled bags are spot-checked for weight accuracy. On the other side of the wheel three operators fill the bags, fitting the bag to the spout as it points to the rear, tilting it downward and sliding the carrots in as the swivel allows the scoop to hold steady for an instant, the wheel traveling (Continued on page 178)





JUST BEING INSTALLED is this Terven-designed "merry-go-round," 30 ft. in diameter, with 30 tilting scoops from which consumer bags will be filled. Carrots, as they come from the grading belts, will ride on the outer circumference and be filled by hand into the scoops which drop them into the bags. This will handle as many as 100,000 bags a day.





A striking merchandiser is this display carton for matchedset bathroom fixtures marketed by Brey & Krause Mfg. Co., Allentown, Pa., with fixtures mounted outside the carton. Five pieces of corrugated fitted inside hold mounting screws. The display with fixtures in place is slipped into a bellows-end paperboard carton for mailing, so no additional wrapping is needed after sale. Display, Gardner-Richardson Co., Middletown, Ohio.

Minnesota Mining & Mfg. Co.'s new polystyrene plastic hand dispensers in a choice of colors for transparent "Scotch" cellulose tape are packaged in paperboard counter display boxes that bring the product directly before the customer. The unit displays 12 dispensers. Display carton, Waldorf Paper Products Co., St. Paul, Minn.



In Canada this "Barber Shop Quartet" displays four styles of Rubberset Co. shaving brushes in amusing individual containers of acetate with hollow heads re-usable as blade receptacles. Base is wood, flocked covered. Display and packages, Sid Bersudsky & Associates, Toronto, of Monsanto acetate and Libbey-Owens-Ford urea. Flocking, Cellusuede Products, Rockford, Ill.

To promote gift sales, the Life Savers Corp. has adopted this "Sweet Story Book" aluminum foil package for assembling 12 regular 5-cent packages into one unit, displaying them in this aluminum foil counter merchandiser. Display design, Richard E. Paige, Inc., New York. Foil cartons and display, Reynolds Metals Co., Richmond, Va.



GALLERY

Transparent and opaque polystyrene are combined to form this crown-shaped, hinged display box adopted by Imperial Watch Co. to spotlight its first century of watch making. The watch rests on a special mounting adjustable for optimum display of the product whether displayed on counters or in windows. Display box, Braun-Crystal Mfg. Co., Inc., New York, using Monsanto Lustron polystyrene.

Pepsodent tooth brushes are currently being displayed in this combination shipping carton and counter or window merchandiser. The glass-encased brushes fit into diecut openings in a twin-section, hinged base that may be spread apart for more advantageous display. Cover fits over base. Design, Raymond Loewy Associates, New York. Carton, Michigan Carton Co., Battle Creek, Mich.









An octagonal paperboard basket forms a convenient counter unit for jumble display of either 25- or 50-cent sizes of Lyons Tooth Paste. Printed in red and blue, the basket measures 9 in. wide and 6 in. deep. New slogan for the product is featured on the 9-in. header piece. Display, Olympic Press, Inc., New York.

To accelerate impulse purchases of quickdrying enamel, Central Paint & Varnish Works, Inc., has adopted this all-metal counter unit featuring six cans of the product, together with a comprehensive color chart and a shelf holding advertising literature. Back piece carries firm's trade character. Display, Arvey Corp., Jersey City, N. J.

LYONS

TOOTH PASTE

Jobber packages

NEW TRADE SYMBOL, IMPROVED COLOR

TREATMENT HELP BOOST SALES 30 TO 35%

The growing importance to jobbers of packages that are easily recognized and remembered is illustrated by the redesigned family of lithographed cans for some 26 products of the S.O.S. Products Co., Inc., Brooklyn.

These products, packaged in cans, are sold entirely through jobber outlets to plumbing and heating contractors. Until recently, surface design on the packages was pretty matter of fact, mostly a type job. The only distinguishing feature was a diamond-shaped trademark carrying the identifying letters, S.O.S.

The company realized that if the products were to stand out among competitors on the jobbers' shelves, something would have to be done with the packages to attract attention. An independent designer was commissioned. He came up with the idea for a stylized cartoon figure of a man, with the S.O.S. diamond reproduced much smaller in place of a belt on the new cartoon figure. Basic colors—red, black and white—were retained, but instead of a meager use of red as a top and bottom band, the whole upper half of the labels has been done with a red background. More prominence has been given to product name, but other copy for the front panels has been simplified and rearranged to present a cleaner and less cluttered look.

The result of the new trade symbol and this cleanup job, combined with better color handling, is instant recognition and quick shelf identification at long range. The use of more legible sans serif type for direction copy on the reverse panels, printed in black on white, is also an improved convenience feature for the user.



PACKAGES were dull and matter of fact. They had no identifying symbol to be remembered. Black background, only top and bottom band in red, provide the necessary shelf excitement.



CARTOON MAN in black and white on bright red background quickly identifies an S.O.S. product. Basic design is adaptable to many sizes and shapes of lithographed containers. Informative copy on back panels is improved in legibility by black printing on white background.

The same basic family design, incorporating the new S.O.S. man, has been adapted to all sizes and shapes of containers in this line of products.

This redesign program was started about a year and a half ago and is now practically completed. New packages were introduced gradually, one or two every month, as supplies of old containers were used up.

During that period, sales have picked up 30 to 35%, mostly due to the promotional impact of the new package design, the company believes. Most noticeable was the effect of the package in bringing the hand cleanser, a new product, to the attention of the plumbing and heating trade. The initial order was for 50,000 cans for the hand cleanser. Within three months, the company had to order more cans. Customers noticed the new product in its new package, tried it, took it to their families for home use as well as for professional use. So successful has been the launching of this product that S.O.S. is considering introducing it into other markets. They also plan to add other new products to their line and feel the new package design will be an effective sales tool in aiding this expansion.

Exedits: Design, Robert I. Goldberg, New York. Boiler colloid can, Allstate Can Corp., Brooklyn. Pipe-joint compound and cutting-oil cans, Eastern Can Co., Inc., Brooklyn. Solder-flux can. American Can Co., New York. Hand-cleanser can, National Can Corp., New York. cigarettes by
RIGGIO Tobacco Corp.

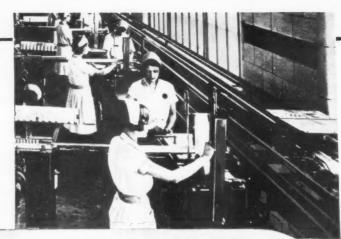
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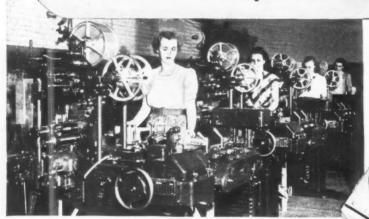
REGENT

F. N. Burt Company Inc. • The World's Largest Manufacturer of Small Set-up Boxes • 500-540 Seneca Street, Buffalo 4, New York
Offices in Principal Cities — Or Write Direct • Canadian Division: Dominion Paper Box Co. Ltd., 469-483 King St. W., Toronto, Canada

Shown here are some of our early Model AA machines in one of The American Tobacco Company's plants. They have used "PACKAGE" machines ever since they first enclosed their packages in an outer transparent wrap.



The machines are DIFFERENT .. but the nameplate's the same



Part of a battery of our modern highspeed Model CM-T machines which enclose Lucky Strike Cigarettes in a cellophane wrap with easy-opening tape.

There's no doubt about it—a satisfied customer is the best advertisement.

The American Tobacco Company, for example, has used our machines for over 30 years, and has consistently replaced earlier machines with our faster more modern models. This is typical of what has taken place

our faster, more modern models. This is typical of what has taken place throughout the packaging field. In fact, many of the biggest names in American industry have standardized on "PACKAGE" machines exclusively.

Over 80 fast, versatile models

These machines are adaptable to many styles of wrapping, with a variety of materials . . . Most are quickly adjustable for numerous package sizes . . . All operate at highest speeds consistent with perfect wrapping, and require a minimum of supervision and maintenance.

These fast, efficient wrapping machines can lower your costs, too. Write for our booklet "Packages that Sell".

PACKAGE MACHINERY COMPANY • Springfield 7, Massachusetts

NEW YORK CHICAGO BOSTON CLEVELAND ATLANTA DENVER

LOS ANGELES SAN FRANCISCO SEATTLE TORONTO MEXICO, D. F.

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Over a Quarter Billion Packages per day are wrapped on our Machines



TECHNICAL

ENGINEERING • METHODS • TESTING

Charles A. Southwick Jr. • Technical Editor

Food uses for vinyl-nitrile

Effective packaging of difficult food products continues to be a challenge to packaging technicians. New developments are constantly outmoding materials and methods which once were judged the best available for a specific product. These developments have been particularly rapid in the postwar years with the commercial availability of various new synthetic and modified natural resins or film-forming materials. It is being discovered that many problems which once were incapable of solution—or at best were solved in a not altogether satisfactory manner—are now amenable to solution by the cooperative efforts of food and plastics technology.

An outstanding example is the development of transparent film formed from vinyl-nitrile compounds. Being exceedingly strong, elastic, greaseproof, readily heat sealable and completely inert and tasteless, this film made possible the successful self-coloring oleomargarine pouch. The rush to this package by the oleomargarine industry has been of such proportions

A REPORT ON THE PROPERTIES OF THIS

IMPORTANT NEW FILM FOR PACKAGING

PRODUCTS OTHER THAN OLEOMARGARINE.

By Ralph Signer and F. Warren Tauber*

* Both of The Visking Corp., Chicago.

CHEDDAR CHEESE wrapped and heat sealed in vinyl-nitrile film has been found to suffer no off-flavor, discoloration or surface drying in three to 12 months' storage period. Whole cheddars have been wrapped and cured in the film.

NATURAL
Wisconsin Greddar
Net Weight State
Offe Princip

that until recently the total available supply of the film was absorbed by that one product. Now production has been expanded to the point where application of the film to other products for which it may prove equally advantageous may be considered.

Test data on the specific properties of the material for various products are now available. Information on the basic qualities of the vinyl-nitrile combination has been published.† The purpose of this paper is to report on new and promising food uses for the vinyl-nitrile tubular film known as Visten.**

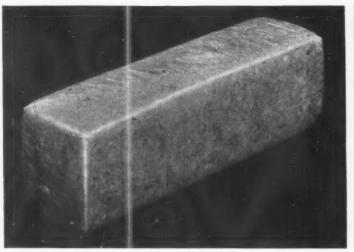
Considerations of use

There are many types of food packaging which require only properties easily satisfied with widely used and standardized items such as paperboard, glassine, paper with wax coatings and moistureproof cellophane. In many of these cases cost is a limiting factor and, since the above-mentioned materials are cheap and serviceable, they are well entrenched as protective materials in the packaging field. In the development of Visten film, there was no attempt to produce an item competitive in price with these well established materials.

During recent years, however, several applications have presented themselves which require combinations in properties of the packaging material not previously available. The requirement for transparency, in ad-

[†] See "Vinyl-Nitrile Blends," by G. E. Field, Modern Packaging, Dec., 1948, p. 149.

** Developed and produced by The Visking Corp. Trade name registered.





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MEAT LOAVES are well suited to packaging in vinyl-nitrile film. Loaves that were placed under refrigeration have been kept for as long as six weeks with no mold growth whatsoever and practically no loss in weight.

dition to other functionals, has directed the development toward the field of synthetic resins and cellulose derivatives. One type of application which offers special problems is that which requires the contents of the package to be in direct contact with the film. In some cases of this type, liquid plasticizer components of the film may be extracted by the food with the result that flavor of the item is impaired. The question of toxicity is also one which enters into consideration. The toxicological properties of the film-forming materials, as well as of the various substances added for modification of properties and for rendering the material processable, are important.

Probably it would not be expected that food wraps such as those for pre-processed meat would have to meet a host of requirements such as transparency, low water-vapor transmission, low oxygen transmission, high degree of flexibility, high degree of strength and some returnable stretch. However, such was found to be the case in our extensive testing program. Obviously these properties would all have to be present in the same film.

Another quality not specifically mentioned, but very important in this work, has been described as "cling." Thus a soft film with the quality of "cling" can adhere well to the surface of the item packaged even though this surface be irregular. It is difficult if not impossible to obtain all desirable qualities in one film. Visten film represents a compromise to some extent. However, it is believed that the properties as given in Table I show that this compromise has not reduced any of the really necessary qualities to any great degree.

Usually of primary importance is the strength of the film. In this respect, values of 3,000 to 4,000 lbs. per sq. in. original cross section of 0.00175-gauge film have been found. Under some conditions of film preparation even significantly higher values were obtained. The film can be stretched at least 250% before breaking. Usually the amount of stretch is much greater. Closely

associated with strength and elongation is the property of resistance to sudden and sharp impact. As measured by the General Electric puncture tester, the film is capable of sustaining blows of 200 in. oz. per inch of tear. The resistance to initiated tear has been measured on the Elmendorf tear tester with the result of an average of 300 gm. per mil of thickness. This measurement was made at approximately 70 deg. F. For lower temperatures this value diminishes.

Film transparency has been found to be 90% in the visible range of the spectrum at a thickness of 1.5 mils. This compares favorably with many other types of film. The surface can be made glossy or dull, whichever is the more desirable for the application. In much of the ultra-violet region of the spectrum, the film shows high absorbency.

TABLE I-PROPERTIES OF VISTEN FILM (0.00175-in. gauge)

3,000 to 4,000 lbs./sq. in.
250-350% (minimum)
14)
200 in. oz./in.
300 gm./mil
7 gm./100 sq. in./mil/24 hr.
45 cc./100 sq. in./mil/24 hr.
380 cc./100 sq. in./mil/24 hr
13.6/100 sq. in./mil/24 hr.

The property of heat sealing to itself is one of the most important from the standpoint of operations in preparing and sealing a package. In this quality, Visten film was found to have a wide range of effective conditions relating to temperature and pressure. This latitude makes for ready adaptability to various sealing operations and a variety of machines. Since conditions vary considerably from application to application, it is difficult to recommend any one set of conditions. However, it has been found that the temperature of 250 deg. F. is a good one to use as a basis for further work. Electronic sealing methods have also been used.

Permeability of films to water vapor has received considerable attention during the last several years. In measurements made in the General Foods water-vapor tester, Visten film gave a rate of 7 gm. per 100 sq. in. per mil of thickness for 24 hrs. at 100 deg. F. Other gases are transmitted as follows: oxygen, 45; nitrogen, 13.6; carbon dioxide, 380. These figures represent the volume of gas transmitted in cubic centimeters for 24 hrs. over 100 sq. in. per mil of thickness as measured by the Todd apparatus.

Of interest to the packaging field both in food and in cosmetic branches is the permeability of the film to various essential oils at room temperature. As may be seen from the accompanying data (Table II), the permeability varies considerably from oil to oil.

TABLE II—PERMEABILITY OF VISTEN, FILM (0.002-IN. GAUGE) TO VARIOUS ESSENTIAL OILS AT ROOM TEMPERATURE

	Loss in wt.
Oil	$(gm./24 \ hrs./100 \ sq. \ in.)$
Ylang-ylang	(Dissolves film in 5 days)
Methyl salicylate	(Dissolves film in minutes)
Coriander	1.29
Petitgrain	1.54
Nutmeg	0.50
Pine needle	0.04
Ionone	(Dissolves film in 3 days)
Isobornyl acetate	(Dissolves film in 3 days)
Phenyl ethyl alcohol	(Dissolves film in 3 days)
Lemon	0.278
Orange	0.201
Geraniol	0.211

For a combination of properties as outlined it was found that two-component systems containing vinyl-type resins and nitrile types of synthetic rubber were effective. The use of a two-component system has the further advantage of permitting variations in formulations and consequently in film properties. In eliminating liquid plasticizers (the function of which is served by the nitrile rubber), the problem of plasticizer migration was solved. The use of nitrile synthetic rubber in vinyl-resin compositions was found to yield film of low water-vapor and gas transmission and a high degree of flexibility.

The absence of liquid plasticizer precludes the possibility of surface contamination of the packaged item when it comes in direct contact with the film. In general also it can be said that the packaged food items do not affect the film adversely even for long periods of storage. The film material has been accepted by the Meat Inspection Division of the Production and Marketing Administration of the United States Department of Agriculture as being suitable for direct contact with food.

Most of the major problems regarding the formulation and use of the film appear to have been solved. However, as in many cases of commercial application, methods of processing are all-important, especially from the point of view of cost.

Visten tubular film has been the subject of study for various applications involving the packaging of foods which can be best described under individual headings.

Meat loaves

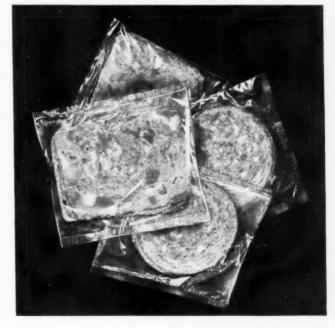
Visten film is used as a protective wrapper for processed meat loaves. Loaves have been kept under refrigeration (45 deg. F.) for (Continued on page 180)

PICKLES, dill and sour, have been packaged with their liquid as shown and stored for 6 to 8 weeks with no evidence of impaired quality.



PHOTOS COURTESY THE VISKING CORP

UNIT PACKAGES for self service are a promising field, particularly for luncheon meat slices and similar products. The tendency of the film to cling closely and its resistance to ultra-violet absorption are important advantages.



Beading of plastic sheet

FUNDAMENTAL FACTORS INVOLVED IN THE CHOICE OF MATERIALS

AND THEIR HANDLING IN FORMING TRANSPARENT CONTAINERS. By E. Ronda*

Beading is one of the widely used techniques in the construction of formed containers from plastic sheeting. Beads are used to reinforce the edges of containers, to give a more finished edge, to improve the appearance, or to provide a ledge for the support of a bottom or top, which may be made of the same or some other material. Satisfactory beads should be neither wrinkled nor rough.

Since production economies may be effected in the fabrication of transparent containers by continuously beading the sides of a strip of plastic sheeting, first consideration will be given to the problem of continuously beading the edges of a piece of flat stock. The same factors that affect this operation will also af-

*Cellulose Products Division, The Dow Chemical Co., Midland, Mich.

BEADED BLANK

ADHESIVE

BOXBOARD
OR ETHOCEL SHEETING

SECTION

COMPLETED BOTTOM

SECTION

COMPLETED TOP

CYLINDRICAL BOX constructed of beaded ethyl cellulose sheeting with sealed-in boxboard bottom and fitted with ethyl cellulose formed lid.

fect the beading (or curling) of the edges of prefabricated cylinders or drawn cups of sheeting material, although they may not be of equal importance in both types of beading. Production machines are available today on which beads can be formed simultaneously and continuously on one or both sides of flat strips of sheeting by drawing the strip of material from a roll through a fixed clearance between a core wire and a heated die. The clearance between the core wire and the die can be changed to suit different gauges of sheeting and different types of beads. In order to accomplish the change in clearance, the core wire and/or the inside diameter of the die can be changed.

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The beaded strip cut to proper length can be used for a variety of box shapes. The side walls of circular and oval containers are made by interlocking the beads and cementing the overlap as in Fig. 1. A piece of boxboard can then be fitted snugly inside the cylinder against the lower bead. Cementing the bottom to the bead adds to the rigidity of the container. Slip-on transparent covers can be fabricated of beaded sheeting in a like manner except that a piece of transparent sheeting is sealed to the bead. A similar top or bottom may also be formed by curling the edge of a prefabricated cylinder or drawn cup of sheeting in a heated curling die. Other suggestions for the use of beaded sheeting are shown in Fig. 2. Cross-sections of some of the beads produced with standard forming dies available for one of the commercial beading machines are illustrated in the aecompanying Fig. 3.

Ease of beading as a property of plastic sheeting is probably affected by the interaction of several factors. The following are believed to be important:

- The inherent nature of the base material from which the sheeting is made.
 - 2. The formulation of the sheeting.
 - 3. The softening and melting point of the sheeting.
- 4. The coefficient of friction between the sheeting and the forming die. This may, in turn, be affected by:
 - (a) The smoothness of the sheeting surface (and of the die).
 - (b) The rigidity or stiffness of the sheeting.
 - (c) The tackiness of the sheeting at beading temperatures. (This is also a function of the relationship between beading temperature and the softening and melting point of the sheeting.)
 - (d) The lubricating quality of one or more of the constituents of the sheeting.

- (e) The difference in temperature between the softening and melting point of the sheeting.
- 5. The resilience of the sheeting.
- 6. The uniformity of gauge and the average gauge of the sheeting.
 - 7. The heat conductivity of the sheeting.

The order in which the above factors are listed is not indicative of their relative importance in the total picture. Furthermore, the order of importance may vary from one sheeting material to another. The list is presented merely as an attempt to suggest various possible lines of attack that might be followed in order to arrive at a solution to the beading problem for a particular sheeting material.

One further requirement that must be met is a somewhat arbitrary one. It depends to a certain extent upon the sheeting fabricator. Most converters use more than one type of plastic sheeting. They are reluctant to change their operating conditions to suit different materials.

At the present time cellulose acetate is the standard by which all other materials are judged. According to manufacturer's literature, it can be beaded at temperatures of 220 to 240 deg. F., depending upon the gauge, and at a speed of 350 in. per minute for 10-mil sheeting on one commercial type of continuous beader.

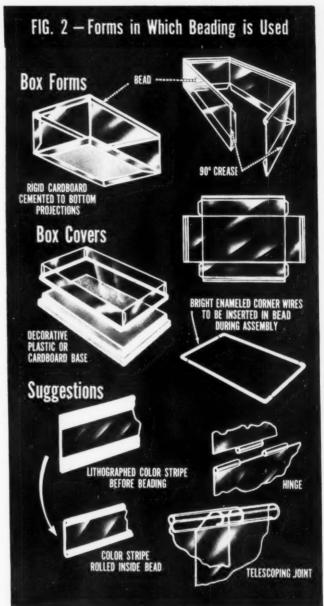
Ethyl cellulose sheeting likewise lends itself readily to beading and forming operations.

If the temperature or rate at which a sheeting material beads is not satisfactory, the sheeting formulation must be modified in order to bring it into line. The formulation may be modified by changing the amount or type of plasticizers, resins or fillers used with the base material. It follows that the modifying agents must be compatible with the base material if a clear film is required.

The coefficient of friction between the sheeting and the beading die is important because it affects both the rate of beading and the appearance of the bead. The coefficient for a given sheeting material may be different at the beading temperature than at room temperature. The material may, in fact, become tacky at the beading temperature and such tackiness may have an even greater effect on the coefficient of friction than does the initial gloss or smoothness of the sheeting surface. A plastic sheeting material that becomes excessively tacky at temperatures below the range at which it can be formed cannot be beaded very successfully.

The difference in temperature between the softening and melting points may have an effect on the ease with which a material may be beaded. It seems reasonable that less difficulty might be encountered in beading a material with a fairly large temperature difference between the softening and melting points than with a material having only a small difference in temperature between the softening and melting points. Operating conditions might be more critical with a material of the latter type.

Lubricants may be incorporated in the sheeting to overcome any sticking tendency that might otherwise



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develop. Lubricants may also be applied to the surface of the die or of the sheeting. Application of lubricant to the die is an expedient of only temporary assistance and application of the lubricant to the sheeting surface adversely affects its cementing properties. Since it is not practical to apply lubricants only to those areas that are affected by the beading operation, lubricants applied to the entire sheeting surface at the point of manufacture may also cause difficulty if the sheeting is to be printed.

The coefficient of friction is likewise a function of the

pressure exerted between the surfaces in contact. Therefore, a stiff material, which forms with difficulty, would exert more pressure on the forming surfaces and hence would increase the frictional drag in the beading operation.

The uniformity of gauge and the average gauge of the sheeting may also affect the coefficient of friction. The gauge of plastic sheeting varies with the method of manufacture and with the rigidity of the specifications with respect to gauge tolerances under which it is made. Die tolerances, which may be generous with one material, may be skimpy with other materials of the same nominal gauge. Not only the gauge range is involved, but also the average gauge. For example, two manufacturers may be producing sheeting of the same formulation and to the same gauge range (that is, the same difference between maximum and minimum gauge), but one may make his material to an average gauge exactly equal to, or slightly less than the nominal gauge specified, while the other may consistently make this material so that the average gauge is three to four tenths of a mil over the specified nominal gauge. Depending upon the clearance between the core wire and the die on the beader, the friction between the plastic, the core wire and the die might be entirely different for the two materials.

Sometimes small differences may be the cause of

SINGLE-EDGE BEADING is accomplished automatically and continuously on this machine, which draws the material through a fixed clearance between a core wire and a heated die. Dies are interchangeable for nine different beads and shapes, and it will accommodate sheet from 0.005 to 0.020 in. thick. Another model of the same machine will bead two edges of box simultaneously.



large difficulties and when material of a thickness measured in mils (and very few mils at that) is being handled, a difference of a few tenths of a mil may be significant. At any rate, this sheet-thickness factor cannot be ignored.

The resilience of a plastic material is another property which may affect the ease with which beading may be accomplished. A resilient material would exhibit a tendency to spring back when a deforming load is applied for only a short time. There would probably be some spring-back regardless of the length of time under the deforming load, but an increased "dwell time" would probably tend to reduce the spring-back. An analogy may be cited: Metal that is dead soft may be more readily formed than metal that has some temper in it. The resilience of the metal is a function of its temper. The metallurgist has learned from experience how to control the temper of his metal, but the factors which affect the resilience of plastic sheeting are obscure and, at best, poorly defined in the present state of our knowledge concerning plastic materials and of their modifiers.

One more factor which may affect rate of beading is the heat conductivity of the sheeting material. This affects the rate at which the material will soak up heat or the time required to reach forming temperature. It would seem that this factor is of minor importance because it can be taken care of in several ways other than by modification of the sheeting formula. The die temperature could be raised somewhat so that the temperature drop would be greater between the die and the sheeting, or a pre-heater might be used in order to provide the longer heating period. In any event, the sheeting material used for beading is relatively thin, so the heat does not have far to travel from the surface to which it is applied.

We have purposely confined our attention to the factors involved in the beading process because, regardless of what the sheeting material may be, these factors are involved and must be reckoned with. Some materials have satisfactory inherent properties, whereas others must be modified extensively in order to meet these requirements.

It must be borne in mind that the beading property of a sheeting material is only one of several desirable properties and some of these other characteristics may be affected by changes in formulation made to improve the beading property. In the absence of exact knowledge which would make it possible to choose the correct amount of just the right material to be used in order to make any necessary change in sheeting properties, cutand-try methods must be adopted. This may involve considerable research. Before a definite formulation can be decided upon, all of the properties of the material must be investigated. That formulation which provides the best all-around balance among the properties desired in a plastic sheeting should finally be chosen rather than one that improves the beading quality at the expense of some other property which may be equally desirable.



Something New in "store windows"...



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Envelopes—with windows of optically clear Kodapak Sheet—provide a wealth of new possibilities for protective counter display.

Windows made of this brilliant, highly transparent plastic sheet display merchandise in true colors and textures...keep it clear, fresh, free from shop wear. Kodapak Sheet is tough and durable, too...gives excellent protection against fingering and handling.

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Cellulose Products Division

Eastman Kodak Company, Rochester 4, N. Y.

FOR THE DISPLAY YOU WANT ... THE PROTECTION YOU NEED

Kodapak Sheet

Kodak

Questions and Answers

This consultation service on packaging subjects is at your command. Simply address your questions to Technical Editor, Modern Packaging, 122 East 42nd St., New York 17, N. Y. Your name or other identification will not appear with any published answer.

Variations in test results and field use

QUESTION: We are seeking your opinion on a subject which is very close to many of our problems. The subject is: cyclic cabinets versus constant temperature-humidity cabinets in product and packaging studies.

We find that a constant temperature-humidity room or cabinet is not truly indicative of the conditions a product encounters in the field. We have checked controlled constant-cabinet studies on packages versus the same packages in the field and find that the field study contradicted the cabinet study. We believe that changing temperatures promote breathing and other physical changes that affect package efficiency and product shelf life.

We propose to correlate a cyclic cabinet with simultaneous field studies in the Gulf Coast areas, thereby accumulating sufficient data from the field to establish a ratio for our cabinet.

We would appreciate your opinion and your criticism of our approach to the problem.

ANSWER: The question of cyclic variations in the temperature and humidity of a package test cabinet versus uniform accelerating conditions has never been clearly answered. One reason is that there have not been proper scientific studies of the factors involved in the comparison of accelerated testing in cabinets or rooms and in the field. After such fundamental data have been developed and conclusions drawn, the next step would be the operation of controlled atmosphere conditions to cause accelerated failure comparable to that which develops under field conditions.

Field tests as a means of evaluating packages is an involved, time-consuming procedure that can give inconclusive and non-reproducible results. There are many reasons for this, but the most important ones are the variations of weather from season to season and year to year and the difficulty of finding a typical point of exposure.

The preferred method of testing new packages is first to determine the sensitivity of the product to moisture change and the kinds of failure that can result from moisture gain or loss. Then store some sample packages in a controlled atmosphere of temperature and humidity which will accelerate the deterioration of the product. Control packages of known performance

with a similar product are helpful in making the final decisions.

Some laboratories use cyclic control of their testing atmospheres to simulate the natural daily variations in temperature and humidity. However, most laboratories use uniform accelerating conditions of constant temperature and humidity. Either system will cause moisture to migrate into or out of a package interior whether through the package walls by permeation or through the mechanical openings in the package.

However, great restraint must be used to keep the cycling action from becoming too rapid and too great in temperature variations, otherwise the mechanical porosity of a package will be its prime cause of moisture change. Also cyclicly controlled atmospheres are difficult and expensive to make and operate.

The laboratory storage method of package testing has been proved to be reliable, rapid and reproducible but, of course, the test must be prepared, performed and the data evaluated with some degree of experience and judgment.

It is not possible to say that a given period in a test atmosphere, either cyclic or constant, is equivalent to a certain exposure at some part of this country or of the world. However, accelerated tests can be said to be comparable in a qualitative way to tropical weather or dry warm exposure or some similar generalization.

Keeping heat-sealer jaws clean

QUESTION: One of our heat-sealing operations is on a laminated material which gums up the teeth in the sealer jaw. Can you suggest a means of eliminating this tedious cleaning operation or making it easier?

ANSWER: One suggestion is to have several sets of sealer-jaw faces and to use a clean set each day while the others are soaking in a suitable solvent or cleaner.

Another possibility is to start with a new or perfectly cleaned set of sealer faces and to coat them with a thin and uniform film of one of the heat-resistant, mold-parting jellies or heavy oils. An occasional recoating during the day should keep gums and resins from sticking to the hot metal and thus eliminate or simplify cleaning. Some of the silicone compounds have proved very useful in this manner.

66% of American Women prefer CEL-O-SEAL on Pharmaceuticals*

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Give your product added protection . . . and extra merchandising appeal, too. Seal it with Du Pont "Cel-O-Seal" to give it that extra something that makes for bigger sales.

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*According to recent nationwide survey among women scientifically selected to represent a sound economic cross-section of American consumers.

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CONTINENTAL CLOSED HEAD STEEL DRUM has all the leak-proof features of a large drum and, in addition, is easy to handle and pour. Side seam is of durable electric lap-weld construction—which means the drum can take a lot of punishment. The bottom and head are attached by double-seaming, giving a five-thickness chime of tremendous strength. Top of drum is offset for easy stacking and the four-finger handle is securely welded on.

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Check with Continental regarding your future requirements. We'd welcome an opportunity to serve you and to prove that you can't beat Continental as a dependable source of supply.

CONTINENTAL



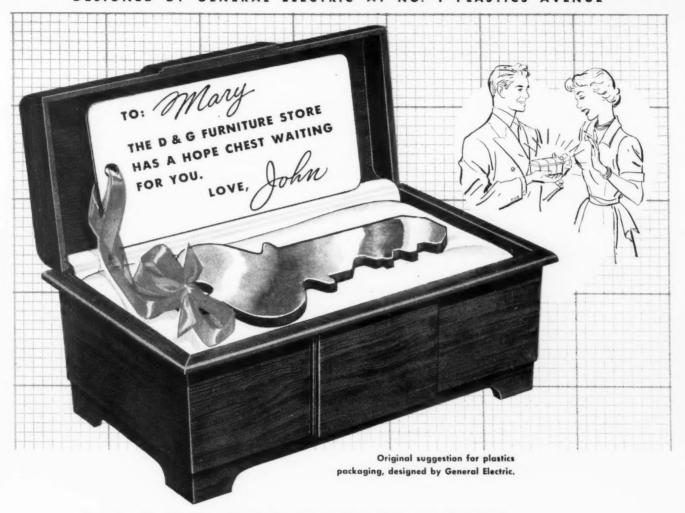
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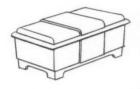
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A G-E PLASTICS PACKAGE DESIGN

to make her hope for the best



Designed for use as a gift token, this miniature hope chest will fill any woman with happy anticipation. General Electric originated it as a packaging sug-

gestion for those seeking a means to "package" bulky items for gift presentation. Attractively molded in brown mottled plastics, it has the charm of the diminutive, and tie-in value by resemblance to the product. There's this plus value, too: it can be used afterwards as a jewel box, serving as a constant reminder of the seller.

This model chest is not a stock item of General Electric's, although the *design* can be yours. It's just an

example of what G. E. can do to assist you in selecting the right package for your product. G. E. has a complete packaging service at No. 1 Plastics Avenue. There you'll find designing and engineering skills which can originate *and* fabricate—in all types of plastics—to suit your needs and specifications.

Why not investigate this plastics packaging service offered by one of the world's largest manufacturers of finished plastics products? No matter what your packaging problem is, you'll find fresh ideas, practical help, at G. E. Just write to Section 2-2, Plastics Division, Chemical Department, General Electric Company, 1 Plastics Avenue, Pittsfield, Massachusetts.



EVERYTHING IN PLASTICS



Equipment and Materials

PRESSURE-SENSITIVE INDUSTRIAL TAPE

A pressure-sensitive paper tape, strong enough to compete with metal strapping and rope for heavy-duty packaging, has been announced by the Minnesota Mining & Mfg. Co.,



St. Paul, Minn. Designated as No. 320, this "Scotch" brand industrial tape has a tensile strength of 180 lbs. per inch of width, the makers claim. It is designed for use in packaging metal pipes, conduits, sheets, coils, etc., by wrapping it once

around the load and back on itself. Strength of the tape is attributed in part to reinforcing the paper backing with thread-like fibres running lengthwise. Its use does not require any equipment and it is said to cut down operators' minor injuries.

IMPACT TESTER

L. A. B. Corp., Summit, N. J., is manufacturing the "Conbur" package tester to ascertain whether shipping containers will withstand shocks from ear switching, bumps in trucks, dropping by handlers and similar hazards before reaching the ultimate consumer. The Conbur inclined plane tester was originated by the Assn. of American Railroads and has been in use for several years.

EXTENSION DELIVERY

A new model of extension delivery has been built by Rathbun & Bird Co., Inc., New York, expressly for printing plants that require both the face-up and fly methods of sheet delivery. This Model E can handle any stock from thin paper to boxboard. It features the single-action platform lift, operated by one crank handle located on the feeder side of the press. Another feature is the design of the tape carriage which can be raised, for convenient fountain adjustments.

ROTARY VACUUM CAPPER

The Anchor Hocking Glass Corp., Lancaster, Ohio, at the recent Canners' Show, exhibited its 16-spindle rotary sealing machine which applies Anchorvac N as well as other types of



Anchor caps with either a steam or a mechanically drawn vacuum at speeds ranging from 200 to 500 per minute. A vacuum chamber is used to enclose the shoulder and finish of the container, thus eliminating the need for vacuumizing a larger area than

necessary and speeding up the sealing operation. It handles caps in sizes ranging from 27 to 96 mm, and glass containers in sizes ranging from 3 to $8^{1}/_{2}$ in, in height and from 2 to $4^{1}/_{4}$ in, in diameter. This machine is made available to packers at a nominal rental.

PAPER-BOX SHAPING MACHINE

Stokes & Smith Co., Philadelphia, has acquired the manufacturing and selling rights to the paper-box shaping machine formerly made by The Shaper Machine Co., Philadelphia. This machine shapes and squares wrapped boxes after they are ejected from the wrapping machine and produces a perfectly square box. It is said to be particularly suited for shallow work or boxes that have a tendency to flare. Adjustable for various sized boxes, this portable shaping machine can be transferred from one wrapping machine to another without loss of time. The company is now building an entirely new model which will be ready this year.

INSULATED ICE CREAM CONTAINERS

Ice cream manufacturers who pack gallon and half-gallon units will be interested in new insulated containers offered by the Jiffy Mfg. Co., Hillside, N. J. These "Mellow-Serv"



shipping containers are designed to keep the ice cream in a frozen state with dry ice, yet at temperatures for ready serving of the product at any time during the refrigerated period. This is due to the construction of the box which provides both insulation and circulation,

thus assuring mellowness of the ice cream when the box is opened. The container consists of a corrugated outer box and a Jiffy liner, plus a collar to hold a corrugated tray which acts as a shield. It was developed, the company reports, to offset objections to placing dry ice directly on the product which resulted in its becoming solidly frozen. It is supplied with gummed labels to be affixed to the container, cautioning the consumer not to open the package until ready to serve, and an instruction chart.

NEW GLAZED PAPER LINE

Wyomissing Glazed Paper Co., in conjunction with Reading Glazed Paper Corp., both of Reading, Pa., announce a new line of coated papers known as Ferro Glazed paper. The high luster and exceptionally smooth, level surface of this paper suggests its use for labels and box wraps, as well as kindred items where a sheet with high luster is desired and a price substantially lower than flint is required. It is currently available in two weights, 30 and 34 lb. $(500/26\times20)$ in both 30- and 26-in. widths, in several shades of white. Ivory is expected to be added to the line in a few months.

HIGH SHEEN LAMINATED RAYON RIBBON

Freydberg Bros.-Strauss, New York, as a result of a new process, is offering a fabric ribbon said to be superior in sheen to pure silk satin. Known as Texray, the ribbon is made by laminating a rayon warp to an acetate film, producing an exceptionally smooth and lustrous ribbon with the appear-

What's new at **General Mills**

NEW MACHINES PACKAGE TONI WAVE KITS

Two automatic machines manufactured by General Mills have been installed in the St. Paul plant of the Toni Company, makers of home permanent wave kits. Called Finished Edge Carton Formers, the new machines produce a flow of ready-to-fill cartons that has resulted in a speedup of the entire Toni packaging line.



One operator can feed the blank hoppers of several Finished Edge Carton Formers and assist with the filling operation besides.

GLUING COSTS ELIMINATED ON LOCK-TYPE CARTONS



Cartons with locking ends are set up automatically at lower cost with a new General Mills machine. The Tray-Lock Machine converts flat, unglued blanks into lock-type trays and cartons at high speeds. Elimination of expensive hand set-up and pre-gluing results in sharply lowered production costs.

The Tray-Lock Machine produces a wide variety of carton sizes and styles. Change-over from one type to another is a simple 10-minute job of changing mandrels

SETS UP 90 DOUBLE-WALL **CARTONS PER MINUTE!**



Step up output of your packaging line with the General Mills Finished Edge Carton Set-up Machine. It forms opentop double-wall trays or cartons from die-cut blanks at speeds up to 90 per minute-replaces costly, slow hand methods. It also forms telescopic boxes used for packaging and displaying candy, gum, pharmaceuticals, cosmetics and pre-packaged foods.

Operation is entirely automatic. One person can supply carton blanks to several machines and assist with the filling operation besides.

A variety of carton sizes are produced, each neatly squared with sturdy, straight sides. The machine occupies only three square feet of floor space and plugs into your regular 110-volt

Write today for details about how this machine can cut your packaging costs, increase your output. Address Dept. M-29, General Mills, Inc., 1620 Central Ave., Minneapolis 13, Minn.

The companion General Mills Tray-Lock Machine sets up lock-type cartons from flat, unglued blanks. Details on this and other General Mills packaging machines (ice cream carton set-up and clos-ing machines, Vacuflow powder fillers) sent on request.

Machanical 1 General Mills, Inc. 1020 CENTRAL AVE. - MINNEAPOLIS 13, MINN. Copyright 1948 eral Mills, Inc. Made by one of the world's largest users of packaging machinery





Equipment and Materials

(Continued)

ance of a woven fabric. It is claimed that this process of manufacture makes possible perfect design precision. Made in widths from $^3/_{16}$ to 4 in., it will be sold together with other ribbons of their manufacture under the Beau Tye label.

PRINTED PRESSURE-SENSITIVE TAPE

Increasing use of printed pressure-sensitive tape for industrial applications as well as for labeling and advertising mediums



has lead the Transparent Products Co., Inc., New York, to offer this material in a wide range of colors and widths. The tape may be used for coding and marking labels, as well as for instruction and routing markers.

In the packaging field, some of its uses include point-of-sale advertising and product identification, as shown in the accompanying photograph.

VIBRATORY CONVEYORS

The Syntron Co., Homer City, Pa., announces the availability of long vibratory conveyors said to be particularly advantageous in the handling and conveying of foods and pharmaceuticals free from contamination; extremely hot, abrasive materials as well as dusty, poisonous products. Designed with sealed, tubular troughs in various lengths and capacities, it may be suspended or base mounted and is powered by one or more of the company's vibratory motors either above or below the trough, depending upon the available space in the plant.

This conveyor has no belts, idlers or variable speed motors to maintain; the movement of the trough is confined entirely to the spring system of the vibratory motor. A dial switch provides variable control of the rate of material flow, making the unit both a conveyor and a feeder.

ALL-ALUMINUM CONTAINER

Reynolds Metals Co., Richmond, Va., is promoting its Traypak all-aluminum container for general distribution after an extensive testing period in which close to a million con-



tainers were used. Products may be baked, frozen and reheated in the same container. Yet, it is said to be economical enough to be expendable after one use. Made of a single sheet of pure aluminum, the containers are said

not to leak or absorb moisture or fats. The properties of the material make it odorless and incapable of imparting any taste to contents

Foods which require high temperature may be filled directly into the container and immediately thereafter may be quick-chilled or frozen.

These containers will be available to commercial packers for baked goods, confections, frozen foods, pre-packaged fresh



Converting from a hand-loading line to
Jones Constant Motion Cartoning, a
prominent manufacturer reports reducing his cartoning costs
from \$89.60 to \$20.96 per day.

Now, one Jones Cartoner is used to carton the daily output of 400 gross. The machine feeds and opens the carton, gradually inserts load into the carton, and closes and tucks both carton ends. When required, a speed of 140 packages per minute is used.

The product is cartoned better and faster. Human error is eliminated—empty or defective cartons cannot pass through the machine. Unit loading costs are reduced to an absolute minimum.

Compare Jones Cartoning with your present methods. Compare costs, too! Write today for complete information, enclosing samples of your product.

R. A. JONES & COMPANY, INC.

P. O. Box 1295

CINCINNATI, OHIO

THE MAJORITY OF AMERICA'S CARTONED PRODUCTS ARE JONES CARTONED



HAVE YOU PACKAGE PRODUCTION PROBLEMS?

- Our job is to supply standard equipment to do standard packaging jobs like wrapping, sealing, conveying and filling.
- We also design and engineer efficient packaging
 systems, and design and build special machinery for
- systems, and design and build special machinery for
 special packaging needs.
- If you need any kind of help in setting up or modifying a packaging operation, we'd like to consult with you.

WRAP-ADE MACHINE CO.

778 Bergen Street

Brooklyn 16, New York

Phone: NEvins 8-8052



The "Chieftain"—new Modern Clipper machine—represents a brand-new design in bag-making machines. It makes flat and square bags of all heat-sealing materials; cellophane, Pliofilm, foil and plastics—with a speed and efficiency never before equalled. No skilled operator is needed. Easy to operate, precise and economical. Has center seam gluing and duplex bag making attachments.

HEAT SEALS

Because a proper heat-seal keeps out and keeps in all atmosphere, it gives you *certain* sift-proofing and leak-proofing. There is no seal that can compare with a heat-seal for protection . . . no machine that can rival the "Chieftain" for versatility and high-speed operation.

MODERN CONTAINERS CO.

3220 E. Olympic Blvd.

Los Angeles 23, Calif.

Equipment and Materials

(Continued)

meats, fruits and vegetables, as well as for locker plants and home packaging of frozen foods.

The container consists of a tray with a separate lid which may be applied tightly by means of a simple manual closing tool, supplied with the containers, or by a semi-automatic closing machine. It is made in pint and quart sizes, with the same sized lid for both. Other sizes and shapes will be available on special order. The tray is tapered so that it nests for shipment and storage, while the covers are recessed for convenient, firm stacking after filling. Trays will be available without lids when a transparent overwrap is desired. Containers may be easily marked or obtained with printed lids.

Tests have shown the tray to be an economical container in which to bake and sell such items as fruit cakes, puddings, pies, etc., thus eliminating the operations of removing the product from the baking pan and packaging it for sale.

PLASTIC BOTTLE CARRIER

U. S. Plastics Corp., Chicago, is molding a plastic bottle carrier, with space for the beverage manufacturer's imprint and/or bottle-cap design on the top surface, that will doubt-



less have considerable consumer appeal. Made of cellulose acetate butyrate Tenite, a product of the Tennessee Eastman Corp., this "Pix-Six" bottle carrier permits the customer to take home conveniently six bottles of beverages of 6- to 12-oz. capacity and return the empties the same way. The smooth, form-fitting plastic handle can't cut the fingers and, the prongs snap securely onto the bottle necks so they can't jiggle or drop

out. When empty, the handle may be folded down flat, so that the carrier fits easily into purse or pocket. At the store the carrier may be used effectively for display stacking.

INK STAMPS COLD METAL FOIL

Time-Saving Specialties Co., Minneapolis, Minn., has an ink for marking aluminum foil, laminated glassine, waxed locker paper and other types of wraps for frozen foods. It is reported to stamp through any amount of condensation on moist, cold, frozen, wet or dry surfaces and to be waterproof and nonsmudging within 30 seconds after application. It is known as Vaporite No. 36 locker plant and cold storage stamp pad ink and is intended primarily for stamp pad use.

VACUUMIZING HEAT-SEALING EQUIPMENT

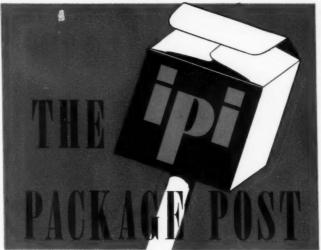
Included in the new line of heat-sealing equipment made by the Seal-Vac Corp., Philadelphia, is a machine for vacuumizing and heat sealing flexible packages in one operation. No larger than an ordinary heat-sealing machine and minus the expense of a vacuumizing chamber, this machine is said to be no more difficult to operate. After a bag is inserted

Package Colors, too, Have "Tolerance Curves"



Yes, package colors have intriguing curves, too. They're scientific curves plotted by a recording spec-

trophotometer. When a package printer uses our Color Control Service, we plot curves of the colors specified for his job. We also plot curves of the tolerances to be allowed. Thus, the printer has unvarying standards against which he can check colors at any time.



IPI, Anilox, and Vaposet are trade-marks of Interchemical Corporation

Printing Inks Star in Sound and Color Movie

Package printing inks are featured in a goodly portion of the latest IPI sound and color movie, "Rainbows to Order."



Many scenes in the 2-reel film are devoted to depicting the research and development work necessary to engineer deteriorant-resistance, abrasion-resistance, and absence of detectable odor into package printing inks. "Rainbows to Order" is available for showings... Write us.

IPI · DIVISION OF INTERCHEMICAL CORPORATION · 350 FIFTH AVE., NEW YORK 1 · ADDRESS INQUIRIES DEPT. A

AYER'S GOLD OVERPRINT RATES A GOLD STAR

All printers know the difficulties of getting bright results with a gold printed over black, especially on long run, volume production jobs.

Therefore the bright gold overprint produced by the Alford Carton Co., Ridgefield Park, N. J., on the display carton for Harriet Hubbard



The printing on glass on these Ayer Dry jars is clean, sharp, and of unusually firm adherence. It was done by Anigraphic Process, Inc., N. Y., with IPI inks for glass.

Ayer's new perspiration deodorant, Ayer Dry, is noteworthy. IPI inks were used. The jars, too, were printed with IPI inks for glass.



Here's how they dry inks with water. This is a picture of a Vaposet drying unit in operation on a commercial web press. The Vaposet unit is the small steam chamber above the web. It implinges steam on the web, instantly setting the Vaposet moisture-set inks.

NEW FAB PACKAGE FEATURES FABULOUS BLUE

We've seen several package production men take an admiring second look at the beautiful IPI gloss blue on Colgate-Palmolive-Peet's colorful new Fab package. Matter of fact, all the inks not only have a high gloss finish—but also withstand the Colgate-Palmolive-Peet rub test.

This whole job was handled right, from the beginning. At the outset, meetings were held between Colgate-Palmolive-Peet packaging men and the printer, paper board manufacturer, ink maker, plate maker, and artists. They discussed color and ink specifications, rotation of printing, type of plates, and copy revisions. In addition, E. H. Balkema, in charge of package purchasing for Colgate-Palmolive-Peet, used our Color



Control Service to establish color standards now being met handsomely and uniformly by Gardner-Richardson of Middletown, Ohio, and Ohio Box Board of Rittman, Ohio.

BROCHURE ILLUSTRATES HOW TO CHOOSE COLORS FOR PACKAGE PRINTING

Fourteen drawings in color, including a full-color representation of the hue circuit, illustrate principles of color selection in the brochure, "Color for Package Printing."

The brochure also contains a section on new inks and processes for package printing, and a guide to the selection of printing inks for packaging. Send for a copy.



NEW IPI ANILINE-TYPE INK IMPROVES LOW-COST PRINTING ON POROUS STOCKS

Here's news if you print anything made of porous stocks—laundry boxes, napkins, toilet tissue wrappers, egg boxes.

Now you can get a new aniline-type ink especially developed for porous stocks. It's Anilox-OS, a new addition to our standard line of Anilox inks.

In a year and a half in the field, Anilox-OS has proved its ability to print with more uniform color, give better mileage, and permit long runs without plate wash-ups. It is stable on the press yet dries quickly and allows immediate roll rewind.

Anilox-OS is made with newly developed solvents



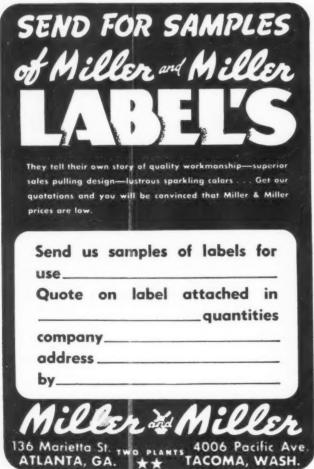
which have a negligible evaporation rate, and which account for many of the ink's desirable characteristics. Synthetic plates and rollers are required with Anilox-OS.

CALLING ALL PRINTERS...

...to remind them that IPI has inks for printing on every kind of surface—paper, folding box stock, corrugated containers, cloth, metal, plastics, and glass. When you have a package printing problem, bring it to package ink headquarters.







Equipment and Materials

(Continued)

between the sealing jaws, the first movement of the pedal on the foot-operated machine pulls the vacuum, which can be regulated to suit the contents of the package, and further pressure without removing foot from pedal effects a seal.

The company reports two further developments: (1) a means of replacing the air taken from the bag with either carbon dioxide or nitrogen, although this feature will not be incorporated in the first machines and (2) a machine which will form a stretch wrap of Pliofilm for use in packaging fresh fruits and vegetables.

ELECTRONIC BOX STAYER

The Spectrum Mfg. Co., Philadelphia, has redesigned its electronic corner stayer which seals the corners of transparent boxes without the use of cement. This machine may



be used for the production of acetate tubes and handles any sized container with maximum seam length of 5 in. Like the original model (see Modern Packaging, Feb., 1948, p. 116), it is based upon principles for sealing cellulose acetate developed by The Eastman Kodak Co. Among the new features of this machine are the electronic timing adjustable from 0.1 to $1^{1/2}$ second, a mercury relay and increased heating power to provide

crea

the 5-in, seam. Set-up is said to be greatly simplified, with the tuning practically eliminated. Production speeds of 1,600 welds per hour are reported and a two-corner electrode device for attachment to the machine will soon be available.

LAMINATOR

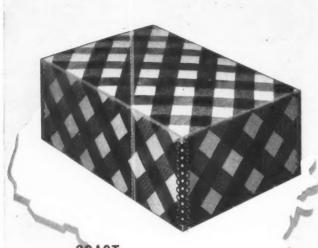
Indus Overseas Corp., New York, announces the Rowbotham Patent double lining and combining machine which will laminate materials from three reels—board or paper—cutting off square to any length from 21 to 54 in. and caliper up to 0.070 in. This machine handles materials up to 35 in. wide and is reported to effect economies in labor, space, adhesives and materials. Heated rollers insure speedy and uniform drying. When the caliper is above 0.070 in., a specially designed heavy-duty rotary cutter is supplied which will handle calipers up to 0.150 in.

COATING PRESERVES FRESHNESS OF FRUITS, ETC.

B. F. Goodrich Chemical Co., Cleveland, Ohio, has developed a plastic coating said to minimize spoilage of fruits and vegetables due to wilting. It also has uses for decorative packaging purposes. This preservative coating, called Good-rite, a colloidal dispersion of vinyl resin latex in water, is said to dry quickly at ordinary room temperature and to form a transparent odorless film less than one-thousandth of an inch thick. It may be applied with a spreader, roller or brush; sprayed on with either a hand or mechanical sprayer, or used as a dip. The company reports that shrinkage-control studies conducted under various storage conditions on fruits, vegetables, etc., indicate it is superior to other formulations now in use.

York 1





to COAST,
in 77
industries,
leading concerns...
large and small...

use

METAL EDGE PACKAGING

because it pays

Metal Edge is more than an exceptionally sturdy, metal-stayed box, assembled from box flats in the user's own plant. It's a packaging method. Find how and why it pays such handsome dividends. The illustrated folder—"Metal Edge, the Engineered Method"—lists 9 important advantages—important to you. May we mail you a copy?



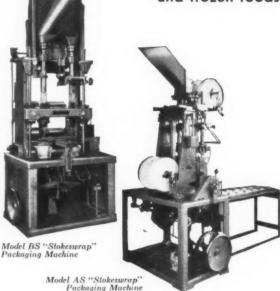
METAL EDGE BOX COMPANY

334 N. 12TH STREET . PHILADELPHIA 7, PA.

<u>STOKESWRAP</u>

PACKAGING MACHINES

for powders • granules •
salted nuts • small candies
crackers • individual pieces
and frozen foods



The "Stokeswrap" Packaging Machine feeds the film (printed or unprinted) from the roll, automatically forms the package, fills with the desired amount of the product, and heat seals. Production — 50 to 100 per minute. Various types of feeding devices are used to suit the product to be packaged.

We will gladly send complete details. Also, we will furnish sample "Stokeswrap" packages if you will send us a small quantity of your product.

We also make a complete line of FILLING—PACKAGING—WRAPPING MACHINES



PACKAGING MACHINERY

PAPER BOX MACHINERY

(A wholly owned) subsidiary of Food Machinery and Chemical Corporation

FRANKFORD, PHILADELPHIA 24, U.S.A.

New Sherman



Kraft covers for shipping or storage



It's here! A jumbo bag made by a revolutionary new machine. Now! Uniformity and greater strength plus real packing economies for everyone who uses or needs giant-sized bags.

JUMBAG FACTS

- 1 Accordion folded. No time-consuming interfolds. Snaps open instantly in a single operation. Quicker, easier to use.
- 2 Fits any shape or proportion perfectly. One bag will fit several differently proportioned articles. Cuts down inventory.
- 3 Self-closing air vents another new feature, optional, at no extra cost — eliminate air pockets and save time.
- 4 Six standard stock sizes from chair-size up to 60 inches high and 12 feet wide. Special sizes made to order.
- 5 Made of new strong-fibred kraft in light, medium, and heavy weight. Also available in waterproof, creped, or crinkled — neutral or stainproof.
- 6 Prompt deliveries. Stock sizes ready for instant delivery through 200 paper distributors. Immediate service on special sizes.
- 7 Low cost substantial savings over hand-made bags.

PAPER PRODUCTS CORPORATION per Falls 64, Mass. • LOS ANGELES • NEW YORK • CHICAGO

SEND TODAY FOR FREE SAMPLE

Sherman Paper Products Corp. Newton Upper Falls 64, Mass.

Rush me FREE TRIAL Samples of Sherman JUMBAG and folder giving full details.

Name_

Address_

State.



Plants and People

Philip W. Hatch has been appointed assistant general sales manager of the Ball Brothers Co., Muncie, Ind. He will assist in the planning and direction of sales programs and



P. W. Hatch

promotions of Ball glass packerware containers and commercial closures in addition to directing all sales of commercial zinc and rubber products other than those of the Domestic Products Division.

Announcement has been made that Ball Brothers have leased the Chatta-nooga Glass Co.'s plant at Jacksonville, Fla. Milton Doremus, former plant

manager for Chattanooga, will continue in the same capacity for Ball Brothers and **Floyd Seybold**, factory superintendent at the company's Wichita Falls, Tex., plant, has been named superintendent at Jacksonville.

Standard-Knapp Corp., Portland, Conn., manufacturer of case sealers, bottle and can packers, and other automatic packaging machinery, will henceforth be known as Standard-Knapp, Div. of Hartford-Empire Co. Following the purchase of all Standard-Knapp stock by Hartford-Empire a year ago, the two companies have now merged, so that Standard-Knapp is no longer a separate, wholly owned subsidiary corporation, but a division of the parent company.

E. B. Dennis, Jr., has been named general sales manager of Kimble Glass, Div. of Owens-Illinois Glass Co. K. G. Hewitt, former manager of the Philadelphia branch office, succeeds Mr. Dennis as sales manager of the Container and Accessories Division. Appointment of Mr. Dennis as general sales manager fills a position vacated when Stanley J. McGiveran was named general manager of Kimble Glass last August.

William H. Walters is the new president of United States Printing & Lithograph Co., Cincinnati, Ohio. He suc-



W. H. Walters

ceeds Joseph P. Thomas, who died recently. Mr. Walters started with the firm in 1918 as an apprentice boy and was on the executive committee before being elected president.

The company also announces that John M. Callahan, formerly secretary and manager of the Western Division, was elected a vice president and R. E. Welch has been named secretary.

William W. Fitzhugh, Inc., folding box and label manufacturers, Brooklyn, announce the formation of a new division for the manufacture of corrugated containers and die-cut specialties. Operations are based on purchase of the assets of the Continental Container Corp., Inc., of Brooklyn. C. O. Kreegar, formerly with Container Corp. of America, is production manager and E. G. Kauffmann coming from Pennsylvania Fibre Box Co., Inc., is in charge of sales.

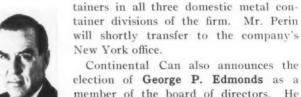
Acme Steel Co., Chicago, has announced the appointment of Robert M. Snodell as assistant advertising manager and C. S. Macnair as consultant on product development.

Announcement has also been made of the removal of both general and Montreal branch offices of **Acme Steel Co.** of Canada, Ltd., to 660 St. Catherine St., W., Montreal.

Arthur Austin has been made assistant general sales manager of Maywood Glass Co. and the Pacific Coast Closure Div. of Anchor Hocking Glass Corp. His head-quarters will be at the general sales office, 3322 Wilshire Blvd., Los Angeles.

By action of the board of directors of Container Corp. of America, Chicago, the following promotions have been made in California Container Corp.: N. Chase Flint, chairman of the board, and William P. Hooker, president.

R. L. Perin, formerly central division sales manager for Continental Can Co., Inc., New York, is now general sales manager, with responsibility for the sale of metal con-



R. L. Perin

Continental Can also announces the election of **George P. Edmonds** as a member of the board of directors. He was formerly president of the Bond Crown & Cork Co., a wholly owned subsidiary of the company.

Construction will begin this spring on a new Continental plant in West Mifflin Boro, Pa., for the production of metal cans and crown caps. The new plant, about 10 miles from Pittsburgh, will replace to some extent present facilities at other locations, but will also provide considerable new equipment to meet increased demands.

Robert Gair Co., Inc., New York, manufacturers of folding cartons and containers, announce the election of **Raymond F. DeVoe** as a vice president.

Richard C. Doane has been elected vice president in charge of sales for the International Paper Co., New York. He has resigned as vice president and general manager of Canadian International Paper Co.

Cedric Crain has been named district sales manager for the Bagpak Division of International Paper Co. in Atlanta, Ga.

Benjamin F. Bunn of the Geo. H. Morrill-General Printing Ink Division, Sun Chemical Corp., has retired from active participation after 42 years. Mr. Bunn will continue with the firm in an advisory capacity.

New home for the **Packaging Division, E. W. Twitchell, Inc.,** is located at 2801 N. Third St., Philadelphia.

D. G. Williamson has been named president of Williamson Adhesives, Inc., Chicago, to succeed his father, the late



"We now pack three sets of clubs in the time formerly required for one," says a prominent golf club manufacturer. "This box not only makes an outstanding display, it also helps boost sales," says the golf professional who handles the merchandise. Compact, sturdy, easily assembled, attractively designed, this H & D box is engineered to save money for the manufacturer, to make money for his dealers. It scores high on both counts.



DUAL-PURPOSE BOX

Increases Product Utility

One might think of a camp stove as an unwieldy piece of equipment—but not this one. It folds up neatly and compactly in a sturdy H & D box, designed especially to withstand the rigors of camp life. Box and stove take up little space in the camper's car; snug fit prevents rattle; convenient handle makes it easy to carry. This H & D packaging idea—of increasing the value of a product by making it easier to use—is virtually without limit in application possibilities.

Add Sales Punch with GOOD PACKAGING!

THIS SHELF PACKAGE

Simplifies the Retailer's Job

The "Eskimo" kitchen mechanic, a modern idea in electrical appliances, takes full advantage of Prepak*—a new idea in packaging. No packing or wrapping at point-of-sale is required. Attractively printed on sand color linen background, the "Eskimo" package invites "take with" purchases, another saving for the dealer. In the home, the box provides safe storage and protection for the life of the mixer.





BOXES

FOR MORE INFORMATION, WRITE

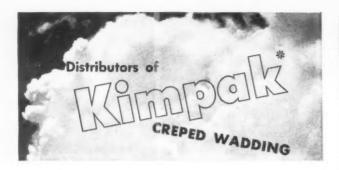
HINDE & DAUCH

Authority on Packaging

Executive Offices: 4902 Decatur St., Sandusky, Ohio

FACTORIES IN:

Baltimore 13, Md. • Buffalo 6, N. Y. • Chatham, Ontario Chicago 32, Illinois • Cleveland 2, Ohio • Detroit 27, Mich. • Gloucester, N. J. • Hoboken, N. J. • Konsas City 19, Kansas • Lenoir, N. C. • Montreal, Quebec Richmond 12, Va. • St. Louis 15, Mo. • Sandusky, Ohio Toronto, Ontario • Watertown, Mass.



ALABAMA	NEBRASKA
Graham Paper CoBirmingham	Carpenter Paper Co Grand Island, Lincoln, Omaha
ARIZONA	NEW YORK
Blake, Moffitt & Towne, Phoenix, Tucson	Hubbs & Howe Co
Graham Paper CoPhoenix	Hubbs & Howe Co Mineola, L. I. Charles F. Hubbs &
CALIFORNIA	CompanyNew York
Blake, Moffitt & TowneFresno, Los Angeles, Oakland, Sacramento, San Bernardino, San Diego, San Francisco, Santa Rosa, San Jose, Stockton	Herbert A. Post, Inc New York Hubbs & Howe Co Niagara Falk The Alling & Cory Co Rochester J. & F. B. Garrett Co Syracuse
Zellerbach Paper Co Fresno, Los Angeles, Oakland, Sacramento, San Diego, San Francisco,	NORTH CAROLINA Southern Paper
COLORADO San Jose, Stockton	Products Co Asheville Henley Paper Co Charlotte,
Carpenter Paper Co Denver, Pueblo	Gastonia, High Point
Graham Paper Co Denver	The Chatfield Paper
CONNECTICUT	Corp
Charles F. Hubbs & Co Bridgeport The Rourke-Eno Paper Co Hartford	The Scioto Paper Co Columbus
GEORGIA	The Ohio & Michigan Paper
Graham Paper CoAtlanta	CompanyToledo
IDAHO	OKLAHOMA
Blake, Moffitt & TowneBoise	Carpenter Paper Co. of OklaOklahoma City
ILLINOIS	Graham Paper Co Oklahoma City
Abana ProductsChicago Bradner Smith & CoChicago	Tulsa Paper Co Tulsa
Graham Paper Co Chicago	OREGON
S. V. Cain, IncPeoria	Blake, Moffitt & TownsPortland Zellerbach Paper CoPortland
INDIANA	
Crescent Paper CoIndianapolis	PENNSYLVANIA
IOWA	Hubbs & Howe CoPhiladelphia
Carpenter Paper Co Des Moines, Sioux City	The Chatfield & Woods Co. of PaPittsburgh
KANSAS	RHODE ISLAND
Graham Paper Co	Cata Bia a Ca Cara Basiliana
KENTUCKY	TENNESSEE
Graham Paper CoLouisville	Graham Paper Co Memphis, Chattanooga, Knoxville, Nashville
LOUISIANA	
Graham Paper Co New Orleans	TEXAS
MAINE Carter Rice & Co. CorpAugusta	Carpenter Paper Co Fort Worth, Austin, Harlingen, Lubbock,
MARYLAND	Oraham Paper Co Corpus Christi,
Hubbs & Corning Co Baltimore	Dallas, Houston, San Antonio
MASSACHUSETTS	UTAH
Carter Rice & Co. Corp Boston	Carpenter Paper Co Salt Lake City
Charles A. Esty Paper Company	Zellerbach Paper Co.
Bulkley, Dunton & Co., Inc. Div. of Carter Rice & Co. Corp.	WASHINGTON
Springfield	Blake, Moffitt & Towne Seattle, Spokane, Tacoma
MICHIGAN	Zellerbach Paper Co.
The Whitaker Paper Co Detroit Beecher, Peck & Lewis Flint	Spokane Paper & Stationery
Graham Paper Co Grand Rapids Crown Paper & Bag CoJackson	CompanySpokane WISCONSIN
Bermingham & Prosser Company	
The Weissinger Paper	Products Co Milwaukee
Reid Paper CoSaginav	Sawyer Paper Co Neenah Service Paper Co Racine

Plants and People

D. V. Williamson. He has been associated with the firm for the past seven years as secretary and sales manager.

Package Machinery Co., Springfield, Mass., announces the promotion of E. G. Westervelt to Eastern sales manager.

At the same time, Alan S. Lincoln was named an executive assistant on the staff of Tom Miller, vice president for sales.



At the Oxford Paper Co. board of directors' meeting the following men were elected to these posts: R. W. Hovey, executive vice president; Harold H. Holden, vice president in charge of sales,

and Donald Appleton, vice president in charge of manufacturing. A. M. McBurney was appointed Eastern sales manager.

New chairman of the board for St. Regis Paper Co. is Roy K. Ferguson, president of the company. James H. Allen, a director and president of two subsidiaries, Florida Pulp & Paper Co., and the Alabama Pulp & Paper Co., has been appointed vice chairman of the board. Announcement was also made of the resignations of Carl B. Martin and Lyman A. Beeman as vice presidents, and the appointments of Benton R. Cancell and William R. Adams as new vice presidents.

Central States Paper & Bag Co., St. Louis, Mo., has purchased a new plant at Irvington, N. Y., for the production of paper bags and liners. To equip the Irvington plant and to acquire additional modern machinery for the St. Louis plant, the company has bought the Mohawk Bag Co. of Miles, Mich.

Marathon Corp., Menasha, Wis., announces the appointment of Paul Anthony as regional manager of the Eastern

P. Anthony

sales region, with headquarters in New York. He succeeds R. A. Nash, who resigned to become vice president of sales for the Sorg Paper Co., Middletown, Ohio.

Two recent additions to the sales staff of Syntron Co., Homer City, Pa., manufacturers of vibratory materials handling equipment are Mark Chisholm, who has been appointed district sales manager of the new office in Des Moines, Iowa, and Ernest K. Hood,

new district sales manager in Kansas City, Mo. New address of Bagphane Corp., packaging converters, is 65 S. 11th St., Brooklyn.

The Grand City Container Corp. and Federal Carton Corp. have moved into their new plant at North Bergen, N. J. Both companies use the same facilities jointly.

W. T. LaRose & Associates, Inc., makers of electronic heating equipment, have moved their entire manufacturing plant to 31 Ontario St., Cohoes, N. Y.

J. A. Cummings, manager of the Armstrong Cork Co. closure plant at Lancaster, Pa., has retired after 28 years of

KIMBERLY-CLARK CORPORATION, Neenah, Wisconsin

CANADA

HAWAII

The Honolulu Paper Co. Ltd.

122 E. 42nd. St., New York 17 155 Sansome St., San Francisco 4

Carpenter Paper Co.... Kansas City Graham Paper Co...N. Kansas City, St. Louis

Graham Paper Co..... Carpenter Paper Co...

MINNESOTA

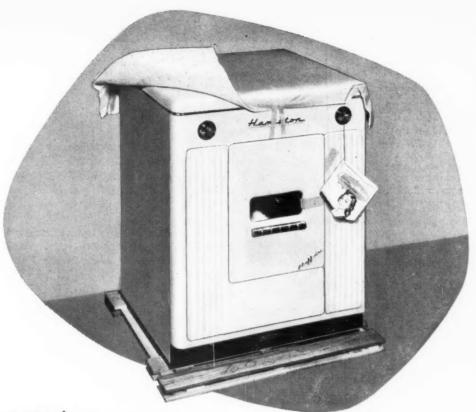
MISSOURI

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... Honolulu, T. H.

*T. M. REG. U. S. PAT, OFF.

F. F. Barber Machinery Company, Ltd....Toronto, Ontario



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Cuts shipping costs reduces damage in transit!

Now-give your product better protection -save money-and deliver a more presentable package. KIMPAK is so easy to apply, it saves dozens of man-hours in the packaging operation. Soft, resilient, flexible-KIMPAK adds little to the shipping weight. And so efficient, that complaints and rejects due to damage enroute are rare.

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Thick cushioning blanket of KIMPAK is laid over top of cabinet and down sides.



Kraft bag is pulled over the KIMPAK cushioning and down to the base.



Corrugated head cap and the sides of wire-bound crate are placed in position.



Completed shipping package affords protection from damage to surface of cabinet.

All photographs courtesy of Hamilton Manufacturing Co., Two Rivers, Wis.

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CREPED WADDING

*T. M. Reg. U. S. & Can. Pat. Off. FEBRUARY 1949

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Neenah, Wisconsin

Please send me free, the illustrated KIMPAK packaging guide.

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Sheet Cutting BECK on your

The Beck Sheet Cutter cuts everything from cellophane to light board, increases production, sizes accurately and needs only part time supervision by an unskilled operator. Electric eye feature available for register control.

Avoid cutting charges. Have the right size sheet always on hand with a Beck Sheet Cutter. Thousands sold to packers. Write.



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Packard Presents... LOW COST FRICTION CLOSURES

Newly developed machinery enables Packard to fill your requirements for metal end, paper

body containers with friction plug closures fast, and at substantially lower cost than ever before. Friction closures are wonderful for every sort of granular or powdered product. They are easy to open, simple to re-seal.

A special Packard variation of the friction-closed container consists of a center divider in the tube with closures at both ends. This allows the unit packaging of two items which must not intermix until used.

If you are interested in Packard's low cost metal end containers with friction plug closures or any other type of closure, we'd like to hear from you. Please write.

Packard Container Corp.

5811 Park Ave. Phone Union 5-5818 West New York, N. J. N.Y.C. Phone LOngacre 4-2348

Plants and People

(Continued

service with the firm. To succeed Mr. Cummings, the company has appointed Louis E. Bentley. J. D. Glenn has been named assistant plant manager and Charles H. Campbell production superintendent of all closure plant operations.

W. A. Doepel has been appointed sales manager for the Package Machinery Division of Lynch Corp., Toledo, Ohio. He succeeds T. C. Werbe, Jr., transferred to the glass ma-



chinery division at Anderson, Ind. Production of the Morpac paper packaging machine, formerly manufactured at the Marion, Ind., plant has been transferred to the Toledo plant. Also to be produced at the Toledo plant is the Rotowrap machine, recently acquired from the Valley Research Corp., Montague, Mich.

W. A. Doepel The New York sales office of the **Paterson Parchment Paper Co.** has been moved to 122 E. 42nd St. **A. L. Smith,** Eastern sales manager, has his headquarters at the new address.

Two appointments have been announced by the Riegel Paper Corp., New York. Ward Harrison is the new manager of production. Robert H. Evans is now secretary of the corporation, succeeding A. P. Mitchell, who continues as vice president and general sales manager.

The appointment of **Orval B. Berton** as sales promotion manager was recently announced by the **Standard Paper Box Corp.** of Los Angeles, Calif., and Longview, Wash. Mr. Berton will continue in charge of the research division.

Four promotions in the foil division of Reynolds Metals Co., Richmond, Va., have been announced: W. Douglas Peters is central division manager; Paul Murphy, assistant general sales manager; Warren Townsend, product manager of the printing division, and Hayden Clement, assistant product manager.

Promotion of **C. K. Billeb** to the position of vice president in charge of plant operations has been announced by **Mil**-



print, Inc., Milwaukee packaging converters, lithographers and printers. Mr. Billeb will be in charge of organizational control and central coordinating of management and operations for all Milprint plants.

C. K. Billeb

William Keil has been transferred from the New York office of Package Machinery Co. to the company headquarters

at Springfield, Mass., where he will take over the territory of Western New England and upper New York State.

The retirement of **Ernest L. Wilkins** from **Chase Bag Co.,** Chicago, has been announced. Mr. Wilkins was with Chase for 42 years.

The Ray T. Ebert Co., Western States distributors for Jiffy insulated bags and industrial packaging products,

KIDDER POINTERS



No. 21.

Observations of trends and indications in packaging... noted by the manufacturers of Kidder "3 Point" Presses, Kidder Press Company, Inc., Dover, N. H.

Soda crackers sold in one-pound packages are now wrapped in moisture-proof cellophane in four quarter-pound units to keep fresh longer. Each quarter is opened as needed . . . preventing remaining crackers from becoming soggy or stale when box is opened. Give you any ideas for *your* product?

A new transparent window glue, said to be the first real improvement over lacquer-type adhesives has been placed on the market. It dries rapidly, holds permanently and tacks immediately . . . is not inflammable and non-wrinkling . . . mixes with water and will not bleed the ink. Works well on glass, cellophane and plastics of various types.

If you hope to sell to the armed forces, better read the article "What The Armed Forces Want", which details some of the conditions your package must meet to get approval of the armed services.

A new process of electroplating metals on to plastic opens up new vistas for packaging designers. Think of any uses for it?

If you must meet exact thickness requirements in packaging materials such as cellophane, paper, fibre or plastics, a handy new thickness caliper operating on the deadweight principle will give you extremely accurate readings on a dial indicator.

Case history development of a protective label that provides a water repellent (and attractive) label-wrapper for a product which is usually handled with wet hands is yours to read in the November 1948 issue of *Modern Packaging*.

When your package has had consumer acceptance for 50 years it's a problem to change it . . . but it can be done if handled right. Read how one firm did it in *Packaging Parade*, November, 1948.

Packaged carrots will outsell bulk offerings even when there is a considerable price differential . . . and when the price is the same the packaged article will drive the others off the market. Read about the economics of this business in the November, 1948 issue of *Packaging Parade*.

The Navy held a materials handling and packaging conference at Bayonne, New Jersey several months back. If you've missed accounts of it, there's a good one in the October, 1948 issue of *Packing and Shipping*.

A new package for individual servings of ice cream which promises to banish dippers from soda fountains and facilitate service in the home is now being introduced in Los Angeles. Has lots of obvious advantages . . . container of waxed paperboard holds 3½ oz. of ice cream called "diced cream".

Properties of Kodapak sheet plastic are fully covered in a 20-page booklet which contains application photos, charts, graphs and data for guidance of those who are considering this material for packaging. Address Eastman Kodak Co., Cellulose Production Sales Division, Rochester 4, New York.

A vapor-tight wax laminated Kraft paper has found varied applications among packagers of materials which must be protected against water vapor or corrodible vapors. Present applications include candy . . . waterproof cement paint . . . photographic papers . . . roller skates . . . soft drink and dessert mixes, etc.



PRINTING THAT INSPIRES SALES

It is a well known fact among retailers that the appearance of its container often has a great influence on the sales success of a product. This goes far beyond the mere assumption that a "pretty design" will insure consumer acceptance. People judge the probable quality of a product by the appearance of the container. Here, accurately impressed, clear printing bespeaks quality . . . stimulates the urge to "give the product a trial". It's printing that inspires sales!

Kidder Presses execute superb printing because they are designed to combine the three essentials of good printing: Control over the paper, proper distribution of ink and accuracy of the impression.

These "musts" are yours in:

The two new Kidder designs of MULTI-COLOR INTERCHANGE-ABLE CYLINDER OIL INK PRESSES ... for metal or rubber plates.

KIDDER ANILINE-TYPE PRESS-ES - the famous Aniliners - for highspeed — high-quality runs . . . including the narrow "Cello-Printer", primarily for Cellophane, and the new "Print-Master" Aniliner offering the ultimate in aniline press speed and quality.

CONTROL OVER THE PAPER PROPER DISTRIBUTION OF

INK ACCURACY OF THE IMPRESSION





Manufacturer of "3 Point" Presses-socalled because they fulfill the three major requirements for perfect printing.





MULTI-COLOR LETTER PRESSES

for waxed paper, box wrappers, etc. rewound or sheet-delivered — up to 72 inches in width.



and "CELLOPRINTER" MULTI-COLOR PRESSES

with gravure units — for decorative papers, cellophane, glassine, etc., — up to 65 inches in width.



REWINDERS

for paper mills, finishing rooms, and converting plants — up to 115 inches in width.

Plants and People

(Continued)

have appointed Harry Rorick sales manager, with headquarters at 840 Seward St., Los Angeles.

Norman R. Dunbar has been named chief engineer for Eldon Mfg. Co., plastics molders, Los Angeles. His assistant is Charles Shaw.

Gilbert Spillert, formerly a chemical engineer at Standard Cap & Seal Corp., is now with Western Products, Inc.,

Newark, Ohio, as assistant to L. S. Meyer. Mr. Spillert will have charge of laboratory control of all plant operations and will use his extensive experience on packaging laminates in the development of a wide range of new products.



G. Spillert

The Sefton Fibre Can Co., St. Louis, Mo., a subsidiary of Container Corp. of America, has leased the facilities of the Can-Tainer

Co. of Auburn, Wash. The new division will continue to produce 1-lb. frozen food cans and it is expected that eventually equipment will be added to produce the company's full line of composite containers for the West Coast trade. R. J. Brockman is manager at Auburn.

Announcement has been made of the appointment of Lloyd L. Antle as vice president of The Woodman Co.,

Avondale Estates, Ga., manufacturers of packaging machinery. Mr. Antle was formerly regional sales manager of the Standard Register Co. and was at one time on the faculty of Georgia School of Technology.



L. L. Antle

Wright's Automatic Machinery Co., Durham, N. C., manufacturer of auto-

matic packaging machinery, is now wholly owned by the Sperry Corp. of New York, which since 1945 has had a half interest in the firm. Purchase of the remaining 50% of common stock by Sperry was announced jointly late last month by Thomas A. Morgan, chairman of Sperry, and Thomas D. and Richard H. Wright. The Wrights will remain on the board along with Mr. Morgan; Thomas B. Doe, Sperry president, and A. R. Welton, Sperry vice president. D. W. Power, vice president and general manager of Wright's, will assume executive management of the Durham operation. Other officers will be: A. R. Welton, president; Gordon Spicer, vice president for sales; R. Y. Cooke, Jr., treasurer and controller; A. L. Cox, secretary, and Francis E. Walker, assistant secretary and attorney. Company policy will remain unchanged, the announcement said.

R. E. Walraven has been appointed field engineer for the Midwestern and Chicago area by Kenneth J. Moore & Co., manufacturers of gluing and labeling equipment.

D. V. Williamson, president of Williamson Adhesives, Inc., Chicago, died on Dec. 30. Mr. Williamson was widely known in the packaging field.

Albert Ritchie Pfeltz, vice president of the American Can Co. in charge of purchasing and traffic, died on Jan. 4.

Announcing

EXCELLO-SEAL POLYFOIL

Polyethylene film laminated to Aluminum Foil

A new vapor-barrier material ideal for heat-sealed bags, pouches, envelopes, and automatic packaging machinery. **Perfect dead fold qualities.**

Available in various gauges, up to 50" wide.

Information and samples supplied promptly upon request.

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Shatterproof PROTECTION
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Customers appreciate products packaged in Lusteroid. They know that these products are safe from accidental roughness in handling because Lusteroid will not break.

It's worth looking into Lusteroid for product protection and distinctive packaging. There's economy in handling, labeling, packing and shipping. All colors of the rainbow—clear or opaque. Sizes from $\frac{1}{4}$ " to $\frac{1}{4}$ " in diameter and lengths up to 6" with cork, slip-on or screw-cap closures.

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If you use any of the thermoplastic coated materials such as Cellophane, Pliofilm, Maralux, Diaphane or Laminated Sheets, buy your material in plain or printed rolls, and make your own bags right under your own roof, where you can exercise full control over quality, quantity and delivery, and substantially reduce your bag cost.

SIMPLEX HI-SPEED AUTOMATIC BAG MA-CHINES make up to 5000 heat-sealed, flat or gusset square bottom bags per hour in sizes up to 9" in width and 16" in length on the Model #1 machine, and 12" in width and 20" in length on the Model #4 machine, using rolls of 30" maximum width. Why not make your own bags and make a profit on the bags as well as on your products. Write us for details.

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- Providing your product with an attractive and durable finish may be just a routine production step—or it may be a rather involved process. But whether it's very simple or extremely complicated, you can assure yourself of the best results when Watson-Standard supplies the finishing system you need.
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For Your Information

The Packaging Institute is formulating preliminary plans for its Eleventh Annual Forum, which will be held at the Hotel Commodore, New York, Oct. 24 to 26. Members are being canvassed for their suggestions as to the type and content of program desired.

The use of wirebound crates has been authorized by the railroads for shipping all items of furniture, both metal and wood, heretofore permitted in wooden crates, according to the **Wirebound Box Mfrs. Assn.** The new authorization for wirebound crates is in Amendment No. 4 to Consolidated Freight Classification No. 18, now in effect.

The Navy Pier, Chicago, has definitely been engaged as the site of the 1950 **A.M.A.** Packaging Exposition, the week of April 23. The 1950 show originally had been scheduled for Philadelphia. Plans for this year's show May 10 to 13 in Atlantic City are going forward, with conferences planned for the mornings of May 10, 11 and 12.

The Plastic Materials Mfrs. Assn. elected Dr. D. S. Frederick of Rohm & Haas Co. as president and Felix N. Williams of Monsanto Chemical Co. as vice president. The Resin Adhesives Division elected as its chairman P. A. Macy of Perkins Glue Co.

The American Institute of Electrical Engineers announces a conference on the industrial application of electron tubes to be held April 11 and 12, Statler Hotel, Buffalo, N. Y.

The first national show to be devoted to all phases of the food distribution field is planned under the sponsorship of U. S. Wholesale Grocers Assn. Named the Food Distribution Exposition, it will be held in St. Louis May 30 through June 1. Packaging exhibits will rank high in the list of allied industries contributing to the show. Among the members of the advisory committee is J. H. Gilluley of Anchor Hocking Glass Corp. Clapp & Poliak, Inc., has been named manager of the show.

What's doing

Feb. 14-17—United Fresh Fruit & Vegetable Assn., Hotel Stevens, Chicago.

Feb. 21–24—Technical Assn. of the Pulp & Paper Industry, annual meeting, Hotel Commodore, New York.

Feb. 27-Mar. 4—American Society for Testing Materials, Edgewater Beach Hotel, Chicago.

Mar. 6-10—Frozen Food Convention and Exposition, Hotel Stevens, Chicago.

Mar. 14-17—Chicago Technical Conference and Production Show, Hotel Stevens, Chicago.

Mar. 20—National Food Sales Conference and 44th annual meeting, National Food Brokers Assn., Chicago.

Mar. 22-24—Folding Paper Box Assn. of America, annual meeting, Drake Hotel, Chicago.

Dan M. Heekin, president of the Heekin Can Co., has been elected president of the Can Mfrs. Institute for 1949. The



D. M. Heekin

following were re-elected officers for this year: H. Ferris White, executive vice president; Clifford E. Sifton, secretary and treasurer, and Harold H. Jaeger, advertising director. On the board of directors are: Richard Amundsen, C. H. Black, D. W. Figgis, R. C. Taylor, Howard Braithwaite, R. G. Dahlberg, E. F. Euphrat, T. C. Fogarty, Sherlock McKewen, P. E. Pearson, V. K. LeComte, G. A. Milton, Sr., E. D. Murphy, C. L. Thomp-

son, J. Howd Phelps, Theodore Phillips, R. C. Rosecrance, R. S. Solinsky, David Stern, Richard P. Swartz, H. K. Taylor, Sr.

Mutual problems of the packaging, freight and cargo handling and mechanized materials handling between the armed forces and industry were discussed recently at a combined Navy and industry conference held at the Oakland Naval Supply Center, Oakland, Calif., sponsored jointly by the Navy Industrial Assn. and the Navy Bureau of Supplies and Accounts.

The American Management Assn. announces the appointment of M. J. Dooher as editor of the association, succeeding James O. Rice, now secretary of the national management group. Mr. Dooher joined A.M.A. in 1937.

H. G. Diefendorf, material handling consultant, has been elected president of the Michigan division of the Society of Industrial Packaging and Materials Handling Engineers. Richard A. Brand was elected packaging vice president; Edwin F. Avery, vice president for transportation; E. H. Van Wagnon, secretary; Randall E. Crabb, treasurer; William McKee Dunn, program chairman; John N. Bode, membership chairman, and V. Lee Edwards, publicity chairman.

The MRM Co., Inc., have published a new brochure on their fully automatic and semi-automatic liquid filling equipment. Requests for copies should be addressed to the company, 191 Berry St., Brooklyn.

International Printing Ink has published a new letterpress color guide in both file and pocket size. The guide shows 108 colors for general work. Address requests for copies to the firm, 350 Fifth Ave., New York.

The 1949 edition of the technical manual on heat-seal papers has been issued by **Nashua Gummed & Coated Paper Co.**, Nashua, N. H. Copies may be had from the firm.

Armstrong Machine Works, Three Rivers, Mich., has available a new 12-page illustrated bulletin describing its steam humidifiers. Copies are available from the firm.



Mass market appeal plus an amazing seal

This product will stay DRY... It's packaged in OPTICLEAR VIALS

Bristol-Myers selected Kimble Opticlear Vials for their new product "Bufferin" because they insisted upon:

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- 2. Positive moistureproof re-seal.
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Opticlear gives all three in superlative degree.

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Division of Owens-Illinois Glass Company



Exclusive Features

MAKE CRCO-NEW WAY LABELERS PREFERRED EQUIPMENT IN ANY PRODUCTION LINE

Fast, dependable, economical...the type of equipment that will reduce labor costs and speed up operations.

CRCO-New Way Labelers will apply wraparound or spot labels on any type of cylindrical container that will roll. Wide versatility and easy to change from one size to another, depending on your requirements. Handles containers from 2" to 61/2" in diameter and up to 9" in height. Can also handle pails with bale-ears, long-neck bottles and jugs with handles. CRCO-NEW WAY LABELER

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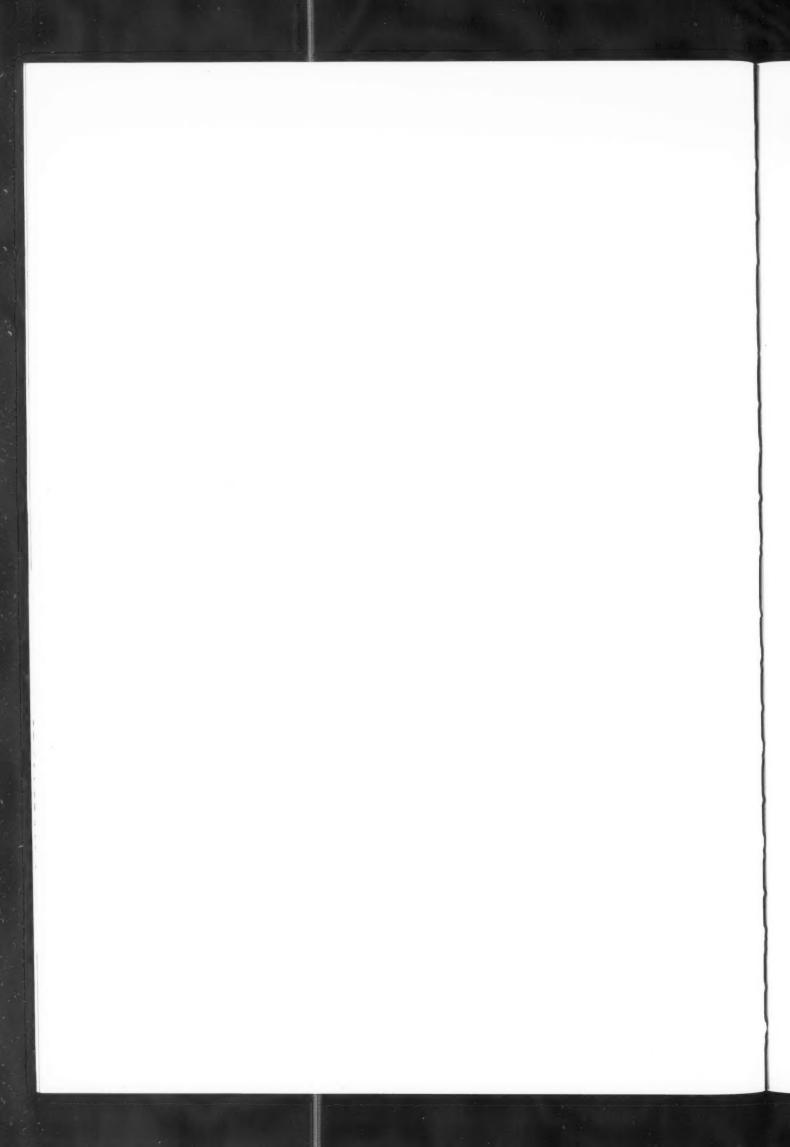
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Send for Special Bulletin illustrating the complete CRCO-New Way line of Labelers, Casers, Feed Tables, etc.



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U.S. Patents Digest

Edited by H. A. Levey

This digest includes each month the more important patents which are of interest to those who are concerned with packaging materials. Copies of patents are available from the U.S. Patent Office, Washington, at 25 cents each in currency, money order or certified check; postage stamps are not accepted.

Holder and Carrier for Bottles and the Like, J. M. Falk and C. T. Falk, Kansas City, Mo. U. S. 2,454,438, Nov. 23. A rectangular box having parallel vertical side walls and parallel vertical end walls abutted together at their ends and forming right-angle corners and a horizontal bottom secured between side and end walls, equipped with a vertical plate and upright strips secured to each corner, which strips are bent at one end to form hooks and at the other end to form tongues.

Apparatus for Compacting and Packaging Materials, D. Ray, Beverly Hills, Calif. U. S. 2,454,477, Nov. 23. An apparatus equipped with a rotatable compacting and sealing mechanism including a rotatable body provided with a multiplicity of circumferentially arranged chambers, each chamber being provided with an outwardly directed port, sources of subatmospheric pressure being provided as well as chambers for folding and sealing containers.

Folding Box, J. Scher, New York, N. Y. U. S. 2,454,573, Nov. 23. A folding box with inner and outer end walls, intermediate end walls, side walls and upper walls forming closure flaps, having integrally formed reinforcing bands extending around each end of box, said box being formed of a single blank of sheet material with a plurality of intersecting fold lines defining all walls.

Receptacle and Closure Thereof, W. H. Schrader, Des Plaines, Ill. U. S. 2,454.674, Nov. 23. Combination with a container having a mouth and a neck provided with an annular groove of variable height and depth on its outer circumference, having an upper and lower surface, lower surface formed at an angle to neck portion and with groove forming an upper surface for a shoulder, having a closure including top and depending skirt with folds being compressed within the grooves.

Adhesive Compositions, N. A. Skow, C. J. Seiler, R. A. Oriani and J. S. Whitaker (to United States of America as represented by the Secretary of War). U. S. 2,454,676, Nov. 23. A slow-aging adhesive capable of attachment to wet and oily surfaces and of supporting substantial loads for an extended period of time from the instant of application, being composed of the following: limed rosin 31.9%, triethyleneglycol di-2-ethylbutyrate 30.1%, ground asbestos 9.5% and bentonite 28.5%.

Duplicating Inks, M. J. Holik (to Ditto, Inc., Chicago, Ill.). U. S. 2,454,700, Nov. 23. A duplicating ink comprising a mixture of dyes in proportionate amounts in parts by weight as follows: crystal violet 6 to 8, chrysoidine 12 to 17, brilliant green 10 to 15, rhodamine 6 to 9, basic brown 9 to 13.

Conveyor to Fish-Canning Machine, R. E. J. Nordquist (to American Can Co., New York, N. Y.). U. S. 2,454,831, Nov. 30. In a fish-canning machine, the combination of a supply tunnel for fish storage, pair of spaced rotatable disks disposed adjacent tunnel and constituting a pair of oppositely disposed movable walls for advancing pieces of fish through tunnel.

Dispenser for Measured Lengths of Pressure-Sensitive Tape, E. E. Sharpe (to Better Packages, Inc., a corporation of New York). U. S. 2,454,844, Nov. 30. A tacky-tape dispenser comprising a support for a roll of tape, adhesion roller, movable support for adhesion roller permitting movement of adhesion roller to draw tape from supply roll and in a reverse direction.

Package of Individual Cleansing Tissue, R. G. Dexture (to Barkley & Dexter, Boston, Mass.). U. S. 2,454,864, Nov. 30. A rectangular sheet of cleansing tissue having the marginal portions thereof folded in opposite directions and along two spaced longitudinally extended fold lines to form a relatively narrow multi-ply strip, said strip being rolled into compact roll form and a narrow band secured at one end, band being wrapped about rolled strip and detachedly connected to an underlying portion.

Multi-Ply Container with Dispensing Outlet Secured Thereto, C. L. Hagan (to The Lord Baltimore Press, Baltimore, Md.). U. S. 2,454,919, Nov. 30. In a container, the combination of an inner container, outer container having a plurality of folded tuck-in flaps for closing one end thereof, two of said flaps

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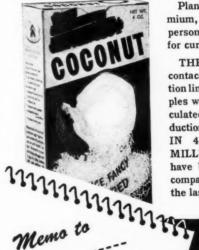
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U.S. Patents Digest

(Continued)

extending toward each other with their ends juxtaposed, said containers having registering apertures, aperture in outer container extending through a plurality of folded flaps with neck portions extending through registering apertures.

Method of Forming Metal Closures for Paper Containers, G. F. Jackson (to Continental Can Co., Inc., New York, N. Y.). U. S. 2,455,063, Nov. 30. A method of forming a metal-end closure on a paper container body which consists in inserting in an open end of a paper container body a metallic end closure having a central body portion merging into an inwardly and endwise-tapered heel and an outwardly turned flange, then bending flange down over open end of body and against outside wall of body end in the form of a skirt.

Method of Fabricating Merchandise Holders and Display Devices, F. H. Bowers, Kalamazoo, Mich. U. S. 2,455,109, Nov. 30. A method for producing a merchandise holder and display device which consists of forming a plurality of groups of openings in a sheet-like, form-sustaining body; covering one side of body with sheet material to permit retention of articles in openings; covering opposite side of body with second sheet of material to close remaining sides of body openings, and then cutting through each of said sheets of material in continuous lines circumscribing each of said groups of openings in different and offset planes.

Collapsible Container, H. A. Johnson, Kansas City, Mo. U. S. 2,455,124, Nov. 30. A collapsible paper carton provided with fold lines defining side walls and closure flaps and including outer side walls having integral foldable closure flaps, which closure flaps are defined by slits terminating in spaced relation to fold line for closure flaps, inner lining substantially co-extensive with the outer side walls, intermediate ply with outer side walls and lining adhesively secured.

Capping Machine, J. Hohl (to Owens-Illinois Glass Co., a corporation of Ohio.). U. S. 2,455,175, Nov. 30. The combination of an endless conveyor comprising a pair of parallel-spaced conveyor belts, stationary conveyor frame along which belt travels, ram positioned over conveyor and spaced to permit passage of jars with caps loose thereon to capping position between conveyor and ram, and means for reciprocating ram vertically and forcing caps on jars.

Dispenser, W. L. Baumner, Jr., Jenkintown, Pa. U. S. 2,455,-212, Nov. 30. In a dispenser for soluble cleansing material, a container for cleansing material, lower portion of container having discharge opening for delivery of soluble material from interior of container and equipped with a closure for container provided with a plurality of openings for splash introduction of fluid solvent into container interior.

Cap-Applying Machine, O. W. Goodwin and H. W. Martin (to American Seal-Kap Corp., Wilmington, Del.). U. S. 2,455,-246, Nov. 30. A bottle-capping machine comprising a base, vertical bore in base, tube slidably keyed in bore, gear case secured to upper end of tube and cap dispenser and conditioner.

Cellular Carton, L. Benoit (to Robert Gair Co., Inc., New York, N. Y.). U. S. 2,455,291, Nov. 30. A cellular carton comprising two foldable blanks each having flaps hinged along one edge and extensible at right angles within the other blank to form cross walls, side wall with cross slits corresponding to the cross walls and upper and lower parallel slits, and having locking tab at bottom of cross slit, said locking tab retaining lug in cross slit.

Cellular Carton, J. W. Cox (to Shellmar Products Corp., Mt. Vernon, Ohio). U. S. 2,455,295, Nov. 30. A molded pulp egg carton comprising a bottom having integral upstanding marginal walls, a two-walled partition integral with bottom and extending upwardly therefrom, said partition being disposed transversely of an opposed pair of walls to define longitudinally spaced pockets.

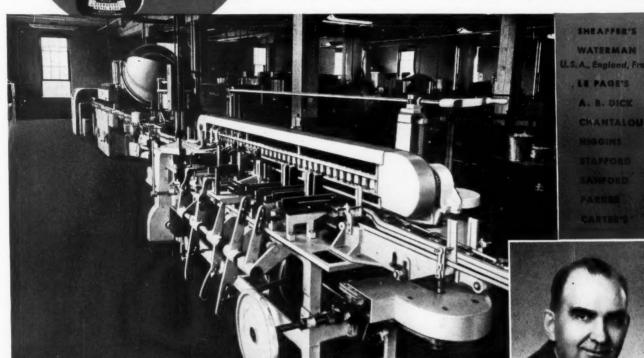
Method of Sealing Cartons, R. Guyer (to Waldorf Paper Products Co., St. Paul, Minn.). U. S. 2,455,304, Nov. 30. The method of sealing a tubular carton with end panels issuing from two opposite side walls, having a sealing foldably connected to one end panel, the method consisting of folding one end panel to extend across the open end of carton, the gusset folds overlying the side panels and sealing flap on said end panel lying against a portion of the inner surface, sealing gusset folds to side panels, sealing flap of one panel to the other panel and holding sealed portions until seal is set.

Loading and Packaging Device, M. Matsen and E. R. Jones (to E. I. duPont de Nemours & Co., Inc., Wilmington, Del.)



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U.S. Patents Digest

U. S. 2,455,433, Dec. 7. A loading device which comprises a pedestal, rotatable table supported by pedestal with openings therein, a motor and means for operatively connecting it, table means for suspending a packaging receptacle beneath each of openings and means for temporarily interrupting delivery of objects to packaging receptacles when an unloaded receptacle is being brought to loading position, all equipment being motor driven and electro-magnetically operated.

Individual Container Sealer, E. E. Anderson, Loma Linda, Calif. U. S. 2,455,461, Dec. 7. An individual container-sealing machine comprising a work table, lifting plate in work table, annulus provided above lifting plate and circular plate provided with a downwardly extending lip at its outer edge positioned above the annulus and in alignment therewith; a pair of opposing semi-circular heating elements movable toward and from each other in a zone between annulus and plate to grasp and release a container whose top extends through the annulus.

Dispensing Container, C. M. Lehman, St. Louis, Mo. U. S. Dispensing Container, C. M. Lehman, St. Louis, Mo. U. S. 2,455,685, Dec. 7. A dispensing box comprising an elongated rectangular paper case and rectangular paper drawer slidable in said case, front wall of case being provided with a detachable section extending upwardly and being weakened in a line between detachable section and upper portion of front wall to permit selective removal of detachable section, thereby forming a fineter receiving available. finger-receiving opening.

Receptacle-Movement Controlled Filling Apparatus, G. L. Ardron (to Continental Can Co., Inc., New York, N.Y.). U.S. 2,455,723, Dec. 7. An apparatus for delivering liquid to containers, a relatively fixed part formed with a vertical opening through which fluid may be delivered, a filler head under fixed part, a movable guide member on filler head, a fixed guide member on fixed part and having sliding engagement with movable guide.

Method of Attaching Metal Closures to Containers, J. Coyle (to Continental Can Co., Inc., New York, N. Y.). U. S. 2,455,737, Dec. 7. The method of attaching metal closure ends to container bodies having flat sides and rounded corners consisting in forming a metal closure end with a depression surrounded by a wall adapted to fit within the flat sides and rounded corners of body, flange extending outwardly around closure and over-lying body wall when closure is placed therein.

Powder-Dispensing Container, L. Hermani (to Continental Can Co., Inc., New York, N. Y.). U. S. 2,455,770, Dec. 7. A closure for the body portion of a powder-dispensing container comprising a flat top and depending skirt adapted to engage body portion of container, said top having an opening at center thereof and dispension container, and top having an opening at center of the safe and dispension container. thereof and dispensing opening at one side of center, control slide disposed inside the top and extending across both openings, and having slots disposed and formed therein.

Tongueless Tearing-Strip Container, T. P. Keogh (to Continental Can Co., Inc., New York, N. Y.). U. S. 2,455,779, Dec. 7. A sheet-metal container comprising a body portion having its edges joined in a side seam, collar disposed within said body, said body having parallel score lines setting off a tearing strip and a score line extending across the strip and setting off an across the strip and setting off an extending across the strip and setting of a strip across the strip and setting off an extending across the strip and across the strip across the end of tearing strip, said body also being scored adjacent the end so that body wall may be ruptured and an opening formed to permit a tool to be inserted for separating end of tearing strip.

Method of Making Tubular Container Bodies with Solder-less Six-Layer Side Seams, W. McK. Martin (to American Can Co., New York, N. Y.). U. S. 2,455,938, Dec. 14. The method of producing a tubular container body having a solderless lined hermetic side seam, comprising feeding a flat blank between a pair of rollers and against a deflector member to form a tubular body about a mandrel, advancing tubular body along mandrel to successive stations where container is formed.

Dispensing Nozzle with Automatic Cut-off, D. Biermann, Cook County, Ill. U. S. 2,456,044, Dec. 14. A device for insertion into a container to be filled with a liquid, comprising in combination a valve body having a fluid passage therein, means for sealing the connection between valve body and container, a vent passage leading from within said container to the outside atmosphere and a check valve in vent passage loaded to close only by passage of a liquid from container to atmosphere.

Container, H. L. Carpenter (to Carpenter Container Corp. Brooklyn, N. Y.). U. S. 2,456,047, Dec. 14. A container comprising a tubular body portion made of fibrous material and formed with a circumferential bead adjacent but spaced from the

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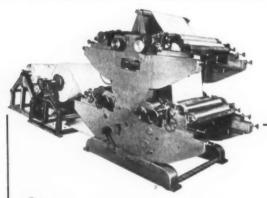


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end thereof, said bead presenting a relatively sharp shoulder facing away from the end and a tapered surface facing towards said end, a closure portion fitted into end of body portion and a split clamping rim embracing end of tubular body.

Machine for and Method of Banding Boxes, W. F. Grupe (to Beech-Nut Packing Co., Canajoharie, N. Y.). U. S. 2,456,059, Dec. 14. In a machine for banding boxes together, the combination of means for feeding boxes one behind the other in a row, devices for guiding bands having adhesive on one side thereof and applying the adhesive sides of the bands to opposite sides of boxes as they pass a predetermined station of travel.

Carboy Package, O. Z. Brewer, Spokane, Wash. (one half to H. H. McNeill Lumber Co., Inc., New York, N. Y.). U. S. 2,456,107, Dec. 14. A carboy package comprising in combination a box and a carboy therein, corner posts for box being rectangular in cross section, cushions abreast of each corner post adjacent the bottom and top of box between corner post and carboy with a carrying block for each cushion.

Display Carton with Sliding Closure, A. Behrens, New York, N. Y. U. S. 2,456,168, Dec. 14. A folding box comprising a housing having a front panel, rear panel, pair of end panels, all panels being defined by vertical score lines, bottom closure flaps extending from lower ends of panels to form bottom closure, main top closure flap extending from top of front panel; slidable roll top for opening display being formed in front panel.

Hardware Package and Display, R. C. Seyforth (to Shelby Metal Products Co., Shelby, Ohio). U. S. 2,456,332, Dec. 14. In a display device for hardware and like articles requiring screws or equivalent headed fasteners, the combination with a card having a face portion adapted to have such articles attached thereto and a series of apertures adapted to receive such fasteners with their shanks projecting therethrough.

Folding Box, A. L. Jackson and H. A. Brown, St. Clair, Mo. U. S. 2,456,419, Dec. 14. A folding box with a first side and two ends hinged to first side at ends thereof, with first and second slots extending through length of each of said ends at the tops and bottoms thereof; two top openings hinged to separate sides providing means for slidably hinging first of box-top sections to second box side.

Receptacle Closure, R. M. Ross, Katonah, N. Y. U. S. 2,456,448, Dec. 14. A receptacle closure of sheet material comprising an end-wall portion, outer side-wall portion integral with end-wall portion, intermediate wall portion integral with and turned back upon said outer side-wall portion and a substantially cylindrical inner side-wall portion having in its wall an indentation in the shape of a screw thread.

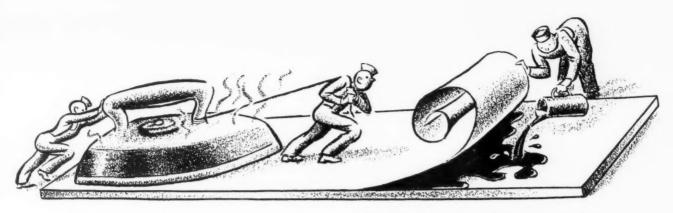
Collapsible Container, M. Antil, Cortland, N. Y. U. S. 2,456,479, Dec. 14. A casing for attachment on a vertical support and having an open front surrounded by top, bottom and end walls, accordian-like side walls mounted at their inner ends with casing; a base wall hingedly mounted at bottom edge within casing for forming bottom of container when extended.

Container, R. Beattie (to Tide Water Associated Oil Co., Bayonne, N. J.). U. S. 2,456,483, Dec. 14. A unit container for lubricating oils and the like proofed to prevent seepage or leakage, comprising a non-metallic, deformable, substantially tubular body portion, lining of separate pre-formed sheet proofing material substantially completely covering interior of tubular body.

Banding Machine, J. H. Mead, Kalamazoo, Mich. U. S. 2,456,523, Dec. 14. A device for securing a band around an article with a seal by means of a pair of crimping jaws.

Receptacle Closure Means, G. Keith, Detroit, Mich. U. S. 2,456,560, Dec. 14. A sealing member for the orifice of a container vessel such as bottles and jars comprising a cap having closed annular shape defined by a wall which is integral with the cap and is formed of distensible material and a liquid fill in chamber, cap being adapted to depress vessel.

Liner Lid For Containers, S. Shaffer, Muncie, Ind. U. S. 2,456,607, Dec. 14. A fully sterilizable closure for an open-mouth container comprising a metal cap having a closed-off top wall and depending downwardly therefrom, said skirt wall being constructed and arranged to fit over and securely engage outer wall portion of container adjacent the mouth; a liner being provided, said liner being open between central portions of cap and liner, all grooves being of sufficient size and number to flush washing fluid freely through spacing between central portions of cap and liner when closure has been removed from container.



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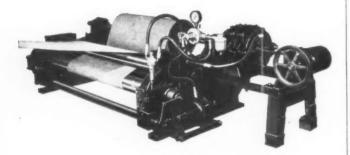
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Anchor Hocking St. Louis office

New display and sales offices of Anchor Hocking Glass Corp. in St. Louis opened Dec. 16 at 818 Olive Street are expected to serve as a model for similar developments of the company in other areas.

Here against a contemporary architectural background of blond plywood and mirror walls is a show



room which for the first time provides ample display for glass containers, metal and plastic closures the company makes, as well as for its products in other lines.

Lighting is a combination of incandescents in direct flood downward behind a deep canopy, special ceiling spots and fluorescents. The floor is covered with deep pile, neutral shade carpet, wall to wall. Furniture is steel gray and chairs are brushed aluminum with green leather upholstery.

A semi-circular, shoulder-high display shelf which partially screens the private offices from the display area is topped with strips of fluted structural glass running to the ceiling in studding pattern.

W. M. Suliburk is manager of the St. Louis Container and Closure offices. Other container and closure sales representatives in this area are A. Renard and N. H. Jones, Jr.

Uneeda Biscuit

(Continued from page 86) law firm, has noted "nearly 900 imitations of biscuit trade names and packages by nearly 300 competitors enjoined or abandoned under notice of suit.'

Advertising policies

How much of its success does Uneeda Biscuit owe to its package design and brand name and how much to the advertising support that these elements have had all through the years? That is a question—difficult to answer-which arises in connection with every one



TURNER TUBES

J. S. TURNER WHITE METAL COMPANY

NEW BRUNSWICK NEW JERSEY

DETROIT OFFICE Elliott Sales Service 725 East 4th Street Royal Oak, Michigan CINCINNATI OFFICE J. A. Bauer 521 Broadway Cincinnati 2, Ohio



EVENFLO eliminates ink waste, poor quality runs and rejects due to improper inking...saves money on every job.

The new Evenflo engraved ink-metering rolls make tedious, time consuming adjustments unnecessary. Ink is fed in the exact quantity necessary for fine presswork, continuously and automatically. No ink is wasted, no press time lost, less printing stock is spoiled due to irregular inking. Evenflo is the one sure way to better printing and reduced costs.

*

PRESS BUILDERS—Improve your aniline presses by installing Evenflo metering rolls as original equipment. Prices will be sent on receipt of your blueprints or sketches.

QUICK DELIVERY ON ALL TYPES OF ANILINE ROLLS

Plate, impression or special aniline rolls can be supplied promptly on order.

Ask for an estimate on any or all the rolls in your press. Quotations will be furnished without obligating you in any way.

EVENFLO HAND PROOFER

the handy way to test color and coverage

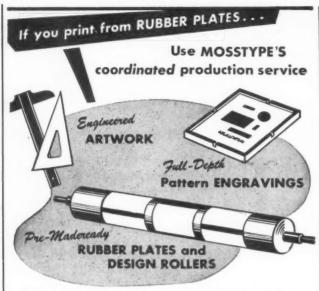
No need to set up a machine for testing ink. Quick as a wink, Evenflo Hand Proofer produces an exact sample. Keep these time and money savers on hand in your plant. Interchangeable Evenflo rollers make it possible to test with a roll that matches the one in your press or test for presses equipped with other than Evenflo rollers.

EVENFLO PRODUCT OF

PAPER MACHINERY and RESEARCH, Inc.

1014 OAK STREET, ROSELLE, NEW JERSE

Builders and designers of paper converting machinery, uniline printing equipment, tension devices and custom mechanical specialties.



Enjoy all the advantages of your own production department—none of the disadvantages—by using MOSSTYPE'S Art-to-plate Service. You furnish the color sketch or printed sample ... MOSSTYPE returns ready-to-print plates or design rollers. Maximum printing quality assured because MOSSTYPE makes black-and-white drawings, photo-engravings, rubber plates in a single coordinated operation. Write today for details.

MOSSTYPE

CORPORATION

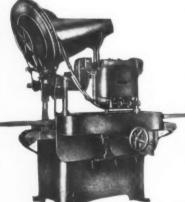
33 Flatbush Avenue Brooklyn 17, New York

Serving Converters and Package Printers all over the world.

Announcing....

NEW RESINA HIGH SPEED STRAIGHT LINE SCREW CAPPER

Flexible • Fast • Fully Automatic



- Operates at speeds up to 250 containers per minute
- Extreme flexibility permits capping of any type of container up to one gallon size.
- Changes over between various types of containers by a simple twist of a knob.
- Built-in conveyor, easily coupled to any packaging line.
 Write for full information.

MODEL XRU



of America's famous packages. Certainly in the case of Uneeda Biscuit, ambitious advertising was a part of the program from the very beginning.

Early in January, 1899, residents of Chicago were baffled one morning by a mysterious new word in bold type printed in their newspapers—the single word, "Uneeda." As they left their houses they saw the same word on billboards. On the next day they saw two words—"Uneeda Biscuit." On the days to follow: "Do you know Uneeda Biscuit?"

"Do YOU know Uneeda Biscuit?"

"Do you KNOW Uneeda Biscuit?"

And then . . . "!!! Of Course, Uneeda Biscuit; Certainly!!!"

Advertising was expanded until it covered the entire country, including not only newspapers, billboards and painted signs, but magazines, theater programs, posters, window and cut-out displays, store hangers and booklets. The Harvard University study of N. W. Ayer & Sons‡ states that "this campaign was probably the largest conducted in this country up to that time."

About 1907 a testimonial dinner was given by the advertising fraternity honoring Mr. McKinney for bringing to his agency a million-dollar advertising contract with National Biscuit Co.—the largest sum ever spent by any company in a single year in advertising to that time. This, of course, was not exclusively for Uneeda Biscuit. The current advertising budget for National Biscuit runs about \$5,000,000 for the company's 200 or more products, of which \$1,000,000 is earmarked for Ritz crackers.

Uneeda boy

As familiar as the Uneeda Biscuit brand name and the National Biscuit end-seal trademark has been the figure of a boy in slicker and sou'wester. He became another trademark. This rainy-day youngster symbolizes the resistance of the new In-er-seal package to moisture, a feature that was widely publicized when it was introduced. The boy and the campaign built around him represent probably the first instance of sales-promotion capitalization on a protective-package feature.

The origin of the figure of the boy is in dispute, but *Fortune*, in its August, 1936, issue, reported it as follows:

"The final touch was added to Uneeda's campaign when another N. W. Ayer executive, Joseph J. Geisinger, decided that National Biscuit ought to have a symbolic character like the Baker's Chocolate girl. Mr. Geisinger's first thought was a picture of an old fisherman in a slicker, eating dry biscuits out of a dry In-er-seal package. But the fisherman in a slicker didn't quite do. So Mr. Geisinger took his young nephew, five-year-old Gordon Stille, to a Philadelphia photographer, dressed him in boots and slicker with an oilskin hat, and photographed him with a box of Uneeda Biscuit under his arm. When Adolphus Green saw the

^{‡ &}quot;The History of an Advertising Agency," by Ralph M. Hower, D.C.S., Harvard University Press, 1939.

LAST! A LOW COST, MONEY-SAY

Wire Stitcher

Revolutionary BUILT-IN TIMING! LONG LASTING CARBIDE CUTTERS!
SELF-EQUALIZING BRAKE ON SPOOL BRACKET!

Your work area is plainly visible and accessible enabling speedy positioning. Automatically feeds, forms and drives wire through material. Gives operator full use of both hands. Makes 250 stitches per minute up to any speed desired. Built-in timing requires no adjustment. Standard staples ¼"—Special sizes at slightly higher costs. Machines available with any number of heads driving staples a minimum center distance of 2½"... WRITE FOR LITERATURE TODAY!

ORDNANCE GAUGE COMPANY

Textile Engineering Division

Amber & Hagert Streets • Philadelphia 25, Pa.

DISTRIBUTORS: NEW YORK, N. Y. . CHICAGO, ILL. . PHILA., PA.

PRECISION-BUIL



Stitching head contains all the moving parts.

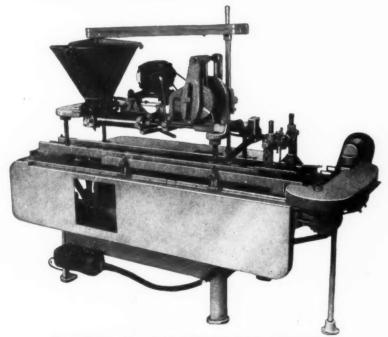


WEAR PARTS PRACTICALLY NON-EXISTENT



INQUIRE ABOUT OUR COMPLETE LINE OF WIRE STITCHERS

The ELGIN TWIN FILLER



Peanut Butter, Jams, Jellies, Cosmetics, Mustard, Mayonnaise, Sandwich Spreads, etc.

NOW AVAILABLE WITH THESE EXTRA FEATURES

- No Container—No Fill prevents discharge of product if there is no container at filling station.
- New Automatic Feed takes containers off single line conveyor and places them on conveyor of Twin.
- New Automatic Jar Cleaner seals containers and then cleans with air pressure and vacuum.
- Germ Killing Germicidal Lamps safe guard your product by killing germs.

Write today for details.

ELGIN MANUFACTURING COMPANY, Elgin, Illinois

Builders of Filling and Capping Machines for Over a Half Century

If it's SALES you need during 1949 - use WEINMAN Transparent Plastic BOXES & DISPENSERS

These attractive re-use boxes and counter dispensers give your product that extra PUSH you'll need during competitive days ahead. Let us help you with your packaging problems.





WEINMAN BROS. INC.

3260W.GrandAve. Chicago 51

The QUALITY line of ransparent boxes!

YOU SHOULD KNOW MORE about MANHASSET



Get immediate facts on the superior MANHASSET REWINDER and SLITTER. This is the original RE-WINDER and SLIT-TER that has been used successfully for many years in leading industries.

Our background of dependable machine manufacture assures you that every MANHASSET machine is tops of its kind.

MANHASSET MACHINE CO

painting made from that picture, the ruddy cheeks and wide inquiring eyes of the Uneeda Boy, he was ecstatic. He kept a copy on a glass panel, illuminated from behind, in his office until the day he died."

The initial success of Uneeda Biscuit was phenomenal. The cryptic "teaser" advertisements brought customers immediately. By 1900, a year after the product was introduced, National Biscuit was selling 10,000,000 five-cent packages per month and the first imitators (see illustration) already had appeared. Grocers, who opposed the package at first, believing that a 20% profit on crackers was not enough, had to accept an innovation the public demanded.

Fresh packaged products, with a quick turnover, at a 20% profit were soon bringing in more money than crackers bought cheaper by the barrel, which suffered losses from spoilage and breakage.

There, in a nutshell, is the whole story of packaging's great contribution to the American economy.

At one time, demand was so far ahead of production that grocers' wagons used to line up at the company's New York City plant to get their Uneeda Biscuit packages, not waiting for the company's deliveries, according to Charles F. Bliss, retired secretary of the company.

Swift distribution has always been a basic policy of National Biscuit. The company has always discouraged retail buying beyond weekly requirements and, through its direct sales contacts with dealers, has maintained a distribution system said to make possible a coverage of 90% of its customers every week. The company claims every grocery store in the United States as a customer.

New prescription boxes

The Rexall Drug Co. has adopted these ivorycolored polystyrene boxes for use in filling prescriptions of pills and powders. The boxes have hinged lids,



which makes them convenient for carrying in pocket or handbag. The Rexall trademark is molded in the cover. The boxes have been made available to Rexall

dealers throughout the country for use in their prescription departments in two convenient sizes: 27/8 by $1^{13}/_{16}$ by $5/_{8}$ in. and $2^{7}/_{8}$ by $1^{13}/_{16}$ by $1^{1}/_{8}$ in.

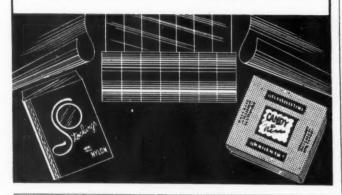
They provide a neat, ethical-looking package essential to the filling of prescription drugs and are especially handy for re-use by the purchaser. The price of the boxes is said to be approximately the same as good quality paperboard boxes. They are being offered to 10,000 Rexall agents and to 400 company-owned stores. Already they have been well received by both druggists and consumers.

CREDIT: Boxes, Plas-Tex Corp., Los Angeles.



WHITING-PATTERSON

Cellophane—Acetate—Foil—Paper Printed by Multicolor Gravure Precision folding, slitting and sheeting 13th and Wood Sts., Philadelphia 7, Pa.





The Perfektum SIFT-ALL

Cleans, sifts, sorts and grades tablets, compressed and coated, including saccharin. It is also adaptable to other sundry items such as ball or square gums, candies, shelled products, etc. Automatically rejects broken pieces, chipped tablets, excess powders, granulations, coated doubles, caps, circumferences and thickness imperfects. Does everything in one operation, requiring no operator, attention or watching.

Write for literature on the SIFT-ALL and our other tablet counting equipment, as well as our ampul washing, filling and sealing equipment.

Perfektum PRODUCTS COMPANY

Established 1922

300 Fourth Avenue New York 10



AUTOMATIC PACKAGING CUTS COSTS

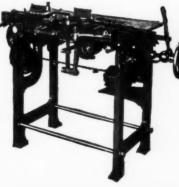
Leading companies throughout the world packaging everything from biscuits to tacks are reducing their costs through the use of PETERS equipment.

These economical, easy to operate machines set up and close packages rapidly and inexpensively. They will raise your profit margin through increased production and lowered cost.

Send us samples of the cartons you are now using and we will gladly make recommendations to meet your requirements.

This PETERS JUNIOR CARTON FORMING AND LINING MACHINE sets up 35–40 cartons per minute, requiring only one operator. After the cartons are set up they drop onto a conveyor where they are carried to be filled. Machine can be made adjustable to set up several size cartons.





This PETERS JUNIOR CARTON FOLDING AND CLOSING MA-CHINE closes 35–40 cartons per minute, requiring no operator. After cartons are filled, they enter machine on conveyor and are automatically closed. Can also be made adjustable to close several different size cartons.

PETERS MACHINERY . COMPANY

GENERAL OFFICE AND FACTORY

4700 RAVENSWOOD AVE., CHICAGO 40, ILL.

Acetate Display Boxes

SHOW YOUR MERCHANDISE

The forceful selling power of these gleaming, drawn acetate display boxes will mean faster turnovers. larger profits. A crystal clear dome reveals and enhances the details of your product, yet keeps it unsoiled. Quick openings of various designs make it easy for customers and dealers to examine the merchandise without fumwith complicated bling Platforms that catches.



provide a variety of effects are available.

These sales compelling acetate display boxes and others of special design are adaptable for packaging many products. And because they are mass produced, they can be delivered in quantities.

Samples of your product forwarded with your inquiries, will save unnecessary delays in quoting.



PLASTIC ARTISANS, INC.

70 Westchester Ave.

White Plains, N. Y.

REDUCE DOWN-TIME

INCREASE OPERATING EFFICIENCY
with the
ARENCO TUBE FILLING MACHINE

Fills, closes, seals and codes up to 55 tubes per minute. Easily cleaned—only stainless steel and Monel used in parts contacting the material filled.



- Automatic tube cleaning before filling. Cleaning and cap tightening in a single station.
- Fat or fishtail filling—single, double or triple fold, without clip. Excellent for artist's colors.
- No tube, no fill.
- Changes quickly from one tube size to another.
 Write today for illustrated data sheet.



THE ARENCO MACHINE

INCORPORATED
25 West 43rd Street New York 28, N.Y.

West Coast carrot operation

(Continued from page 119) under it. The operator drops the filled bag on the tray, which carries it around to the stitching station.

This is another original Terven creation, consisting of a standard wire stitcher mounted on a frame. An operator places each bag upright and folds the upper end over a bar, placing across it a tent label which bears the "Gold'N Fresh" trademark on both sides. The machine's carrier then grasps the bag and propels it through the jaws of the stitcher which automatically sews three wire staples across its face, fastening it securely, but not making the closure air tight, for it is necessary for carrots to breathe. Bags are then ejected onto the table for packing.

The shipping container for pre-packages is the same wirebound box used for loose carrots. The consumer-sized bag, designated to contain 16 oz., is fabricated from 450-LSAT cellophane or from Pliofilm, with trademark and shipper's name printed on the outside by a special process.

Conclusions

Shipping of fresh carrots is tied closely to packages and shipping containers, which is another way of saying that progress in this industry will be measured by the development of improved packaging.

A new shipping container is indicated—fibre, steel, impregnated paper or some as yet unnamed material. There are, in fact, well-substantiated indications that such a container is on the way—a container lighter in weight, cheaper, more easily handled than any now in use. When this container, whatever its nature, is made available to the produce industry, packaging will have made a most important and perhaps decisive contribution which will influence events not only in the food-producing areas of the West, but in the over-all food supply situation of the world.

CREDITS: "Tw-Ice" and "Sharma Process" wax, Zenith Processing Corp., Santa Monica, Calif. Automatic box-making and nailing machines, Food Machinery Corp., Riverside, Calif. Sawn shook boxes, California Pine Box Distributors, Salinas, Calif., and West Coast Box Co., Salinas, Calif. Crate liners, Paterson Pacific Parchment Co., San Francisco; Blake, Moffitt & Towne, Salinas. Wirebound boxes, Martin Bros. Box Co., Whittier, Calif. Wirebound-box closing machine, J. H. Platt & Son, Los Angeles. "Champion" wire s'itcher, Acme Steel Co., Hoffert Div., Racine, Tent and cra'e labels, Crocker-Union, San Francisco. "Lithopaque" printed cellophane bags, The Dobeckmun Co., Cleveland, Ohio. Pliofilm, Goodyear Tire & Rubber Co., Akron. Overunder scales, Exact Weight Scale Co., Columbus, Ohio. Corrugated shipping trays, Container Corp. of America, Chicago. Materials handlers, Service Caster & Truck Corp., Albion, Mich., and Automatic Transportation Co., Chicago.

CORRECTION: Due to a typographical error, F. G. Morehouse of the Laboratory Department of National Biscuit Co., was incorrectly quoted in the Packaging Institute Forum report in our November issue (p. 147) as stating that he conducts moisture-resistance tests at 180 deg. F. Actually, he uses the 100 deg. F. temperature specified by TAPPI.



Starts to Work

MEET a lively lady...RIPCO MAID. She's our new paper machine and shown here is about onetwentieth of her. A velvet-smooth performer...smart of line...correct in every detail...she indeed has class.

There is a quality in the purring performance of this great machine that prevails throughout this well-integrated mill.. in its vastly expanded plants... in its batteries of new equipment. You will find it, too, in our broad line of better-than-good glassine and grease-proof papers and converted specialties that are ever finding new packaging uses. Perhaps we have a paper that will serve you better than what you use now. Haven't you a problem we can tackle with you?



Rhinelander, Wisconsin





Faster Filling with the ANDERSON PORTABLE BAGGER

Designed to handle foods, confections, and numerous products in metal, plastic, wood, and rubber. Operates with a minimum of effort at a maximum speed.

Simple adjustment for height...tilting forward or backward enables the operator to set machine at easiest working position.



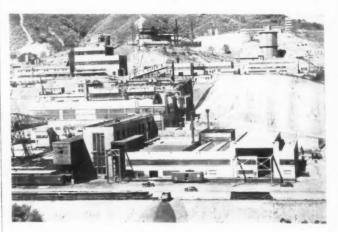
Stainless steel trough with capacity of 200 bags. Adjustable to bag sizes. Blower with filter keeps bags clean and free from foreign matter.

Send for Bulletin No. 2-29
ANDERSON BROS. MFG. CO.
ROCKFORD, ILLINOIS



Kaiser's aluminum foil

The first shipment of Henry J. Kaiser's aluminum foil rolled off the mills in January at Permanente Metals Corp.'s new aluminum foil plant—the first and only



aluminum foil plant west of St. Louis—at Permanente, Calif., adding another product to Mr. Kaiser's new 2¹/₂-year-old company.

The new foil mill, valued at \$1,500,000 occupies 80,000 sq. ft. of floor space at Permanente Metals Corp.'s huge magnesium plant, unused since war's end. Loewy Construction Co. of New York redesigned the mill for top-speed foil production.

Present maximum production of foil is said to be approximately 5,000,000 lbs. per year. The foil can be ordered up to 30 in. wide and in thicknesses from 0.00025 to 0.005 in. The mill will sell foil in lots as small as 1,000 lbs. and the mill's output will be directed to converters and printers, manufacturers of chocolate, chewing gum, electrical capacitors and condensers, crown cap liners, milk bottle caps and dairy products, insulation, cigarettes and tobacco, artificial leather, radiant heating equipment and food packers. Sales will be handled through regional offices throughout the country.

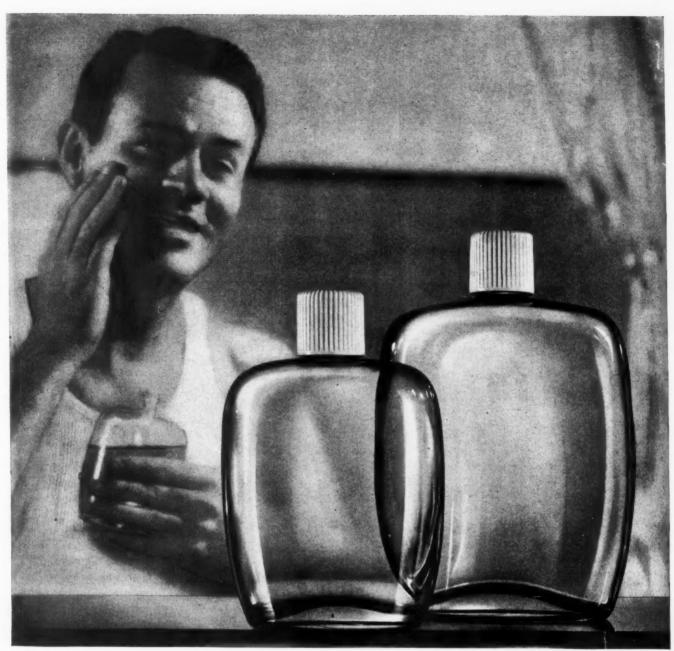
Lee King, chemical engineer, responsible for the development of much foil packaging used by the services, heads the research and testing laboratory.

Food uses for vinyl-nitrile

(Continued from page 127) periods up to six weeks with practically no loss in weight and without mold growth.

Oleomargarine

Visten tubular film has been the leading packaging material for the oleomargarine squeeze-color application (U. S. Patent 2,347,640, issued to L. Peters). The oleomargarine is sealed into a Visten bag with a color capsule. The consumer releases the food dye by pinching the capsule through the sealed container and kneads the coloring material into the oleomargarine



These new cosmetic ovals, in 4- and 8-oz. sizes topped with distinctive Empress closures, are ideal for after-shave lotion, hair tonic, etc.

Contents men like...

in the exactly right Duraglas container

• Here's four-way assurance that there is an exactly right Duraglas container for your product:

First—economy. Sturdy Duraglas stock-mold containers are low in original cost, efficient on your filling line. Second—design. Every one of the

more than 1400 drug, chemical, and toiletry containers is designed for sales appeal, plus filling-line dependability.

Third—brand identification. Duraglas stock-mold containers quickly focus attention on your distinctive

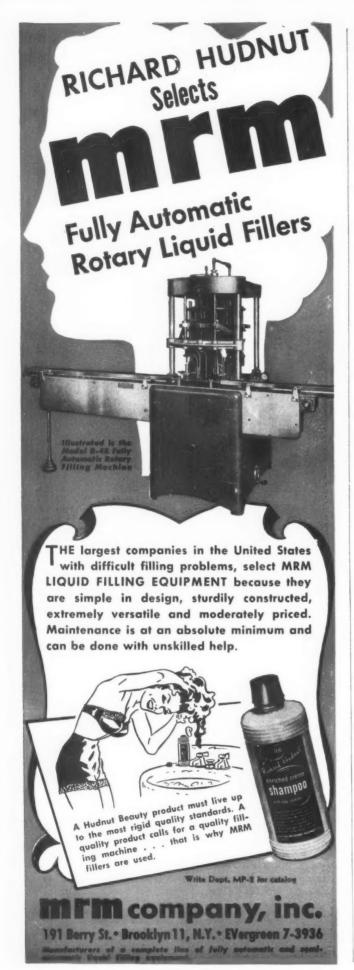
label, speed customer recognition, speed sales!

Fourth—complete packaging service. Bottles, closures, cases, expert design and engineering staff—all at one source of supply to save you time, cost and worry.

Duraglas containers - PROTECTORS OF QUALITY

OWENS-ILLINOIS GLASS COMPANY . TOLEDO I, OHIO . BRANCHES IN PRINCIPAL CITIES

FEBRUARY 1949



mass. The tubular film is at an advantage over other wrapping materials since only two seals are needed to give a finished package.

Pickles

Dill and sour pickles have been packaged in Visten film and stored at room temperature (80 to 85 deg. F.) for six to eight weeks without any evidence of impaired quality at the end of this storage period.

Cheese

Cheddar cheese in 20-lb. blocks and in the 70-lb, cheddar has been wrapped and cured in Visten film. The cheddar was wrapped and sealed in the film and placed in a telescoping cylindrical paperboard container. The container was lined with waxed paper. This cheese was stored for more than eight months at 45 deg.

No surface drying or mold contamination was detected when the cheese was examined after the storage period. The cheese was rated as equal to and in some instances better than a wax-coated cheddar made from the same vat and held under identical conditions of storage. One- two- and five-pound packages of cured cheddar cheese, wrapped in the film, were in excellent condition after three to 12 months of storage. No off-flavor, discoloration or surface drying of the cheese was observed.

Research on wrapping and storage of cheeses other than cheddar cheese is in progress. At present the prospects of these applications are very promising.

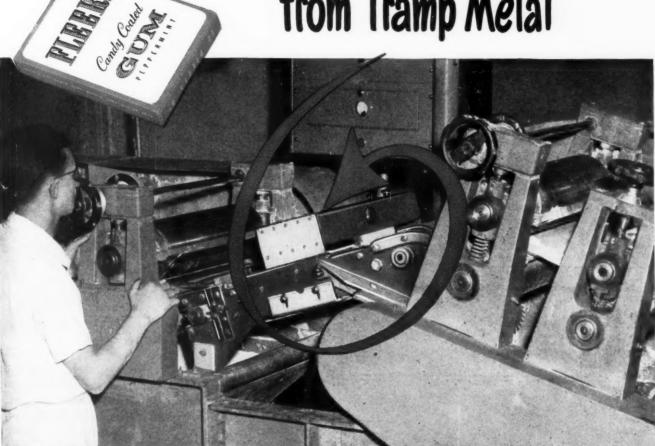
Self-service packaging

Unit packages for self-service items have been studied, especially applications covering sliced luncheon loaves and similar materials. The ultra-violet absorption of Visten film is of such a nature as to make this material interesting for the self-service type of package. Also, by virtue of its "cling" quality, it may eliminate the necessity of vacuum packaging for some self-service items.

Identity for auto parts

(Continued from page 107) manila. They have company name and product identification on the top panel, with drawings of three filter lines to add snap and merchandising appeal. Quantity and catalog number appear in white patches at the lower right corner of the package. Colors on this package and those for other accessory parts are blue and yellow. Each package holds five filter lines.

The small packages for the oil filter installation fittings have space for quantity and catalog number on the top panel and a white patch for catalog number on the front panel, so that they may be readily identified even when other packages are stacked on top of them. These Electronic Sentry Guards Fleers Gum from Tramp Metal



Allis-Chalmers Metal Detectors Provide Constant Product Inspection

THE FRANK H. FLEER CORPORATION, Philadelphia, knows that purity is essential to its product. As a result, A-C Metal Detectors stand watch over its production line . . . protecting against metal contamination . . . assuring customer good will.

Manufacturers of food, plastics, tobacco, rubber, and many other products, use A-C Metal Detectors

Manufacturers of food, plastics, tobacco, rubber, and many other products, use A-C Metal Detectors as insurance against machinery damage and loss of production time. One installation, in a plastic processing plant, paid for itself the first day of operation by preventing damage to calender rolls.

Allis-Chalmers Metal Detectors will spot magnetic or non-magnetic particles as small as .039 in, in diameter, regardless of how deeply imbedded they are. If you're interested in their possible application in your plant, contact our representative in your nearby A-C office, or write direct.

*The Metal Detector was developed by RCA Victor. Now, however, RCA's high frequency heating and metal detection equipment has been added to the Allis-Chalmers line. Thus, the combined electronic experience of two great companies is available to serve industry.

ALLIS-CHALMERS, 1124A SO. 70 ST. A 2557 MILWAUKEE, WIS.

Please send me more information on:



METAL DETECTORS

Protect product quality and machinery. 2, 4, 7, 12 in. apertures. 9.7

☐ INDUCTION

HEATERS Brazing, soldering, hardening, annealing. 1



DIELECTRIC

Wood, plastics, textiles, sand cores. 100 w through 125 kw.

Name...

Company

Address.....

City.....State....

ALLIS-CHALMERS

ELECTRONIC HEATERS AND METAL DETECTORS FOR INDUSTRY

Cans with Sales Appeal

A complete custom service from sketch to a finished product that is exclusively yours. Your lithographed containers combine easy brand identification with ideal product protection.

We also manufacture a complete line of round cans with stock designs for candies and cookies.

Let Empire quote on your requirements. We should get acquainted.



"No other container protects like the can"

Empire Can Corp.

220 Ashford St. Brooklyn 7, N. Y. Applegate 7-4701

MORE PROFITABL 18,000 MULTICOLOR Send your produc-SHEETS tion samples, let Champlain show PER HOUR! you how to do the job-better, faster, more profitably. EASY OPERATE Depend On The Leader HO MAKEREADY CHAMPLAIN CO., INC. 88 LLEWELLYN AVE., BLOOMFIELD, N. J. CHICAGO OFFICE: 7 W. Madison St., Chicago 2, III. Rotogravure at its best

packages are sufficiently large to accommodate various numbers and types of fittings.

Shipping cartons are identified on four sides with copy styled like that of the basic package design, thereby unifying the entire packaging program. Only three sizes of plates are required for all sizes of containers. For shipment, counts of six, 12 and 24 individual packages are placed in the corrugated containers, whose sizes have been planned so that each box is stable no matter what size of cartridge pack is placed in it. This is accomplished by packing the cartridges in three ways—vertically, laterally along the length of the container, or horizontally across the width of the shipping container. Depending upon the quantity of cartridges involved, the packages are placed in either single or double layers.

CREDITS: Design program, Richard M. Franz, Milwaukee, Wis. Folding boxes and shipping containers, Hummel & Downing Co., Milwaukee. Printed labels, Commercial Press, Racine, Wis.

Consumer education

(Continued from page 81) of times... It's there for protection. If you fold it up after pouring out the family's Cheerios, you'll help to keep Cheerios at its freshest, most delicious best."

Last July, General Mills also hammered home the importance of scientific packaging in a presentation to copywriters of the company's four advertising agencies. Reversing the normal agency-to-client approach, General Mills invited the ad men to Minneapolis, where top executives gave them detailed facts about company operations. Primary purpose of the meeting, conceived by C. S. Samuelson, advertising manager for grocery products, was to give the writers new ammunition for use in advertising copy and for promotional ideas.

During the presentation, Dr. Ralph H. Manley, director of research for General Mills, emphasized that research, including package development and testing, helps insure the honesty, integrity and quality of company products. After outlining the key requirements that a modern package must meet, he explained how General Mills' Physics Research Department develops packages that fill those requirements for each specific product. And to illustrate the effectiveness of this scientific approach, he told of one research-developed package that increased the shelf life of a product three times and simultaneously slashed packing costs.

Like all other phases of the program, this presentation didn't give packaging its full due with one magic wave of the verbal wand. It did, however, give agency writers new ideas that undoubtedly will turn up in their copy—at least indirectly. Together, similar educational and publicity efforts are unobtrusively turning packaging into a more effective sales tool and giving the modern package the place it deserves in the public eye.



This brand new No. A-4 aniline printing press offers perfect register at highest speeds on cellophanes, foils, and other materials your customers require for wrapping their products. Many other models in our complete line of presses are available for the aniline printer. Write us for complete detailed descriptions.

HUDSON-SHARP

MACHINE CO . GREEN BAY . WIS

Packages_











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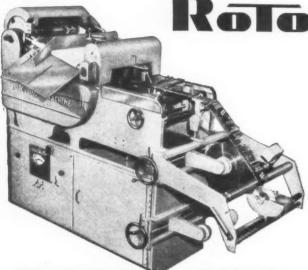
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Protekwood, 5/32" thick	. 930
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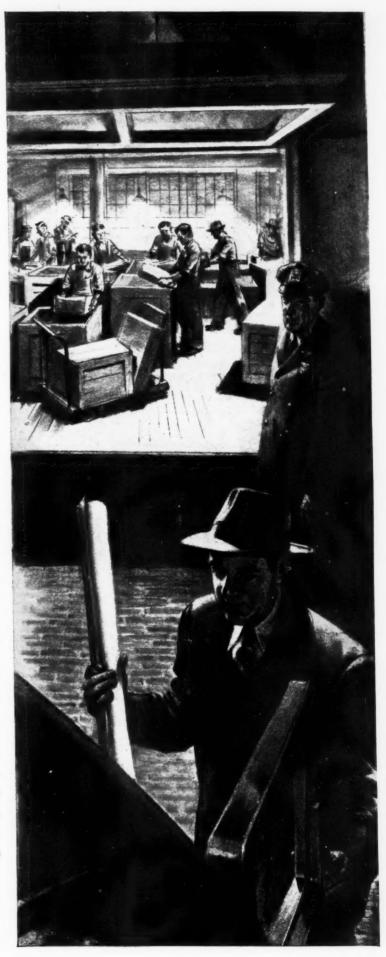
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EMPLOYMENT . BUSINESS OPPORTUNITIES . EQUIPMENT (USED OR RESALE ONLY)

GLUE DEPARTMENT—Folding Box. Man capable of taking complete charge 1 Straight Line, 2 Right Angle Gluing Machines. Pacific Coast. Give age, experience, etc. Box 782, Modern Packaging.

MACHINERY WANTED—Want Smith Stokes Model SN envelope sealer. Give condition and best price. Write 794 c/o this publication.

FOR SALE: New CECO—latest model folding box package scaling machine, with special automatic self-inking imprinting or code attachment, in use only 2 weeks. Sale, due to change of packaging. Portable on wheels, and adjustable, can accommodate following size cartons: Minimum: length, ½"; width, ½"; depth, 2"; Maximum: length, 3"; width, 2½"; depth, 6". Write Stelz Co., 257 West 17 Street, New York, N.Y.

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WE'RE STUCK—Need Space—250M-4 x 2 x 7 Glue End Folding Boxes (Plain) \$2.00M; 13M-4\frac{1}{4} x 4\frac{1}{4} x 9 Rev. Tuck Lock Bleached Mla. 2.50M; 17M-4\frac{1}{4} x 4\frac{1}{4} x 14\frac{1}{4} Lock Bleached Mla. 3.50M; 5M-5\frac{1}{4} x 3\frac{1}{4} x 7\frac{1}{4}\$ Glue End Fold. Boxes 4.50M. All F. O. B., Los Angeles. Acorn Paper Products Co., 1050 Mignonette St., Los Angeles 12, Calles.

WANTED SALES representative to handle line of moisturevaporproof packaging bags, greaseproof & waterproof papers, heat seal foil bags, pressure-sensitive tapes, etc. Box MP 809, 222 West 42 St. N.Y.

MACHINERY FOR sale—Triangle Model P-1 Volumetric Filler equipped with motor, belt and pulley. Ready to operate. Good condition. Priced right. Box 800, Modern Packaging.

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WANTED: Plastic scrap and rejects in any form. Cellulose Acetate, Butyrate, Polystyrene, Vinyl, Polyethylene, etc. We pay top prices for clear, colored and printed scrap in any quantity. Box 781, Modern Packaging.

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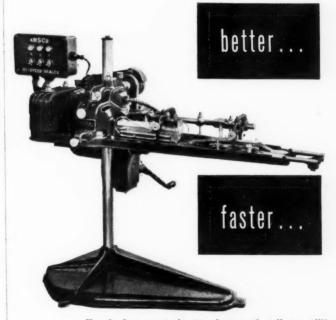
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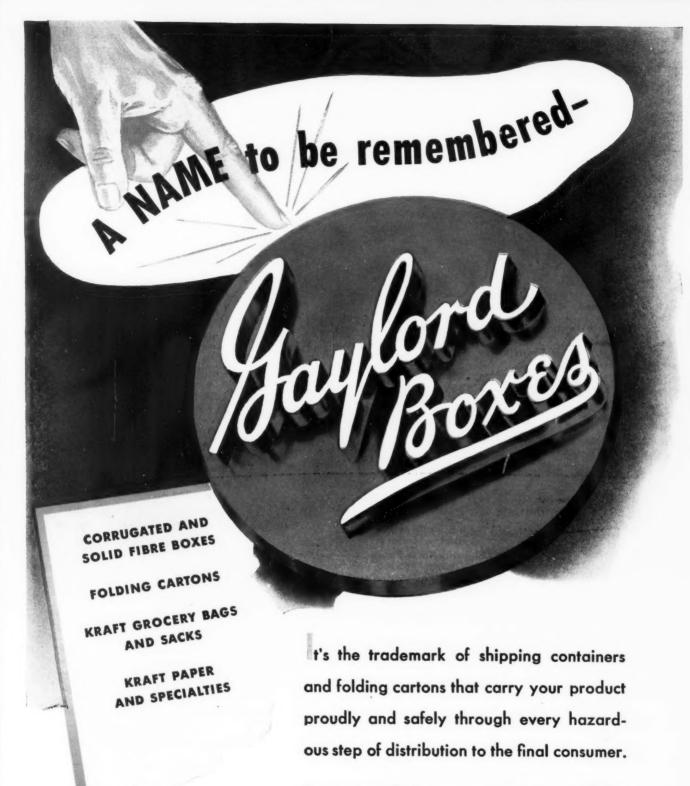
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Modern packaging



A BRESKIN PUBLICATION

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Every Shellmar package is designed to enhance the product...let us show you what a Shellmar Package can do for yours!



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